

103
**GROUNDWATER MONITORING AND
INCINERATOR ASH**

Y 4. EN 2/3:103-145

Groundwater Monitoring and Incinera...

SUBCOMMITTEE ON
TRANSPORTATION AND HAZARDOUS MATERIALS
OF THE

COMMITTEE ON
ENERGY AND COMMERCE
HOUSE OF REPRESENTATIVES

ONE HUNDRED THIRD CONGRESS

SECOND SESSION

ON

H.R. 2654

A BILL TO AUTHORIZE THE ADMINISTRATOR OF THE ENVIRONMENTAL
PROTECTION AGENCY TO EXEMPT CERTAIN SMALL LANDFILLS FROM
THE GROUNDWATER MONITORING REQUIREMENTS CONTAINED IN
LANDFILL REGULATIONS PROMULGATED BY THE AGENCY

JULY 27, 1994

Serial No. 103-145

Printed for the use of the Committee on Energy and Commerce



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GROUNDWATER MONITORING AND INCINERATOR ASH

WEDNESDAY, JULY 27, 1994

HOUSE OF REPRESENTATIVES,
COMMITTEE ON ENERGY AND COMMERCE,
SUBCOMMITTEE ON TRANSPORTATION
AND HAZARDOUS MATERIALS,
Washington, DC.

The subcommittee met, pursuant to notice, at 9:35 a.m., in room 2322, Rayburn House Office Building, Hon. Al Swift (chairman) presiding.

Mr. SWIFT. The subcommittee will come to order.

This morning, we will hear testimony on two issues of importance to the subcommittee. In the first half of the hearing, we are going to hear of the concerns of certain small communities over groundwater monitoring requirements contained in Subtitle D of the Solid Waste Disposal Act. These communities, because of their small size and their isolation, are faced with a limited number of waste disposal choices.

Congressman Sarpalius has introduced a bill, H.R. 2654, to address the special circumstances of these communities, and we are happy to have him here this morning to help us understand the issue and his legislation.

We are also going to hear testimony from Mr. Peter Robertson, the Deputy Assistant Administrator of EPA's Office of Solid Waste and Emergency Response. EPA has recently concluded a series of public meetings on this issue and will testify as to the Agency's efforts to find a solution to the problem.

In the second half of the hearing we will turn our attention to the issue of ash generated by the burning of municipal solid waste in waste-to-waste energy facilities. I will have more to say on that issue at that time.

For now, I wish to welcome on behalf of the members of our subcommittee the witnesses, and I look forward to an interesting and productive examination of these two issues.

I am also happy to recognize for the purposes of an opening statement a man who has been up since the crack of dawn reliving his youthful athletic endeavors by trying to play baseball at his advanced years, the gentleman from Ohio.

Mr. OXLEY. Thank you, Mr. Chairman.

Today's hearings focus on problems which arise because Congress failed to provide necessary flexibility in RCRA. Flexibility in landfill criteria is necessary to account for the vast differences among regions of the country in types of landfills. As we address environ-

mental laws we are going to have to listen to the needs of local businesses and governments operating in different areas of the country to avoid some of these serious and unnecessary problems.

We will also hear today from EPA and the States on the current legal and regulatory status of the ash generated by municipal waste incineration. Recent Supreme Court decisions have held that ash must be managed as a RCRA hazardous waste if the ash exhibits hazardous characteristics. These decisions have called into question existing ash management practices throughout the country. Some regulatory or legislative response may be necessary to correct this situation.

I hope Deputy Assistant Administrator Robertson can give us EPA's perspective on this issue, and Mr. Eaton can give us a State's perspective as well.

Mr. Chairman, I look forward to today's hearing and welcome our colleague, Mr. Sarpalius, and the rest of the witnesses.

I yield back the balance of my time.

Mr. SWIFT. I thank the gentleman, and ask unanimous consent that all members of the subcommittee may submit opening statements for the record. Without objection, so ordered.

With that, we are happy to welcome Congressman Sarpalius, who is the author of the bill that is before us, and ask unanimous consent that all of your prepared testimony and all of the prepared testimony of all of the witnesses at today's hearings be made a part of the record. Without objection, so ordered.

You may proceed, Bill, in any manner you would like.

STATEMENT OF HON. BILL SARPALIUS, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF TEXAS

Mr. SARPALIUS. Thank you, Mr. Chairman. I would like to thank you for the opportunity to appear before the subcommittee today to discuss groundwater testing regulations for landfills. I have submitted my written testimony, and I will briefly summarize.

On October 9, 1991, the EPA finalized exemptions for small landfills for groundwater monitoring requirements. These requirements were spelled out in the Resource Recovery and Conservation Act, Subtitle D.

On May 7, 1993, the U.S. Court of Appeals for the District of Columbia Circuit gave a decision on Natural Resources Defense Council v. EPA that revoked the EPA's power to exempt small landfills from groundwater monitoring requirements.

The court interpreted the case to include all municipal solid waste landfills, no matter how small, but that was not the intent of Congress. My legislation will simply reclaim the authority of EPA to make exemptions. It is clearly aimed at keeping small landfills open without landfill owners having to go into debt by complying with the groundwater monitoring regulations.

Again, Mr. Chairman, I appreciate the opportunity to testify here today, and I urge you to give strong consideration in support for H.R. 2654.

Mr. SWIFT. Bill, thank you very much.

[The prepared statement of Mr. Sarpalius and the text of H.R. 2654 follow:]

STATEMENT OF HON. BILL SARPALIUS, A REPRESENTATIVE IN CONGRESS FROM THE
STATE OF TEXAS

Chairman Swift, I want to thank you for the opportunity to appear before this subcommittee today to discuss groundwater testing regulations for landfills. I introduced legislation last summer, H.R. 2654 which would authorize the Administrator of the Environmental Protection Agency to exempt certain small landfills from the groundwater monitoring requirements contained in landfill regulations initiated by the Agency.

Mr. Chairman, I strongly feel that small, rural communities in remote and arid areas need our help to exempt them from this ruling.

On October 9, 1991, EPA issued final criteria to exempt certain small municipal solid waste landfills from design requirements (i.e. liner and leachate collection systems), corrective action, and groundwater monitoring requirements. EPA created these exemptions to meet the requirements of protecting human health and the environment while taking into account the practical capabilities of landfill owners and operators. These requirements were spelled out in the Resource and Conservation Act (RCRA) Subtitle D.

On May 7, 1993, the U.S. Court of Appeals for the District of Columbia Circuit issued a decision, *Natural Resources Defense Council v. EPA*, that declares the EPA to be without the authority to issue an exemption for the ground-water monitoring requirement.

The court erroneously believed that the intent of Congress was to require groundwater monitoring at all municipal solid waste landfills, no matter how small the landfill or how arid or remote the area. Unfortunately, the court ignored statutory language indicating that the EPA's revised "... should require groundwater monitoring as necessary to detect contamination . . .", and instead interpreted the "should" as "shall".

Many of us remember that the EPA's originally proposed rule also made this error. We were successful in convincing EPA that Congress did not intend to force groundwater monitoring on all small landfills, and EPA's final rule utilized the discretion that Congress authorized.

EPA's criteria for the exemptions were very narrowly drawn. To qualify for the exemptions, small landfills had to: (1) accept less than 20 tons of waste per day; (2) exhibit no evidence of groundwater contamination; and (3) either (a) serve a community that experiences annual interruption of at least 3 consecutive months in surface transportation (e.g. northern Alaska); or (b) be located in an area that annually receives 25 inches or less of precipitation (e.g. western Texas.)

Compliance with the new regulations will also hurt small towns because of the cost. The regulations involve drilling expensive wells that will detect contamination from landfills. It is estimated that it could cost a landfill owner \$50,000 to drill each well. Chances are many arid towns will simply close their landfills rather than comply with the regulations. At the end of 1991, there was a total of 533 landfills in the State of Texas. As of today, there are only 233 landfills left. Of these 233, 80 are considered small landfills (accepting less than 20 tons of waste per day). These landfills are in limbo waiting for decisions to be made regarding restrictions on groundwater monitoring. It is expected that regardless of the outcome, 1/2 of these landfills will have to shut down due to exorbitant prices for maintenance.

The EPA says close to 1,000 landfills across the country, mostly in the western States, will be adversely affected by this ruling.

My legislation will simply give EPA the discretion to make the exemptions that EPA already made in its October 9, 1991 rule. This legislation is aimed at keeping small landfills open without landfill owners having to go into debt by complying with the groundwater monitoring regulations.

Again, Mr. Chairman, I appreciate the opportunity to testify here today and urge you to give strong consideration to supporting H.R. 2654.

103D CONGRESS
1ST SESSION

H. R. 2654

To authorize the Administrator of the Environmental Protection Agency to exempt certain small landfills from the groundwater monitoring requirements contained in landfill regulations promulgated by the Agency.

IN THE HOUSE OF REPRESENTATIVES

JULY 15, 1993

Mr. SARPALIUS (for himself, Mr. ENGLISH of Oklahoma, Mr. STENHOLM, Mr. ROBERTS, Mr. COMBEST, Mr. EDWARDS of Texas, Mr. LAUGHLIN, Mr. ANDREWS of Texas, Mr. PETE GEREN of Texas, Mr. BROOKS, Mr. ORTIZ, Mr. CHAPMAN, Mr. GLICKMAN, Mr. HALL of Texas, Mr. VOLKMER, Mr. MONTGOMERY, Mr. DOOLEY, Mr. ORTON, Mr. PENNY, Mr. HAYES, Ms. ESHOO, Mr. MCCURDY, Mr. SMITH of Oregon, Mr. JOHNSON of South Dakota, Mr. YOUNG of Alaska, Mr. POSHARD, Mr. DORNAN, Mr. SKEEN, Mr. WILSON, Mr. HANSEN, Mr. SMITH of Texas, Mr. WILLIAMS, Mr. EMERSON, Mr. TRAFICANT, Mr. STUMP, Mr. BONILLA, Mr. ROHRBACHER, Mr. HUTTO, Mr. MANZULLO, Mr. PASTOR, Mr. BARRETT of Nebraska, Mr. COLEMAN, and Mr. PETERSON of Minnesota) introduced the following bill; which was referred to the Committee on Energy and Commerce

A BILL

To authorize the Administrator of the Environmental Protection Agency to exempt certain small landfills from the groundwater monitoring requirements contained in landfill regulations promulgated by the Agency.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

1 **SECTION 1. AUTHORITY TO EXEMPT CERTAIN SMALL**
2 **LANDFILLS FROM GROUND WATER MONITOR-**
3 **ING REQUIREMENTS OF ENVIRONMENTAL**
4 **PROTECTION AGENCY LANDFILL REGULA-**
5 **TIONS.**

6 Section 4010(c) of the Solid Waste Disposal Act (42
7 U.S.C. 6949a(c)) is amended—

8 (1) by inserting “(1)” before “Not later than
9 March 31, 1988,”;

10 (2) in the last sentence, by inserting “, except
11 as provided in paragraph (2),” before “ground water
12 monitoring”; and

13 (3) by adding at the end the following new
14 paragraph:

15 “(2)(A) The Administrator may exempt from the
16 ground water monitoring requirement any facility—

17 “(i) at which less than 20 tons of municipal
18 solid waste is disposed of daily;

19 “(ii) at which there is no evidence of existing
20 ground water contamination from the facility; and

21 “(iii) which serves a community—

22 “(I) that experiences an annual interrup-
23 tion of at least 3 consecutive months of surface
24 transportation that prevents access to a re-
25 gional waste management facility; or

1 “(II) that has no practicable waste man-
2 agement alternative and is in an area that re-
3 ceives 25 inches or less of precipitation annu-
4 ally.”.

○

Mr. SWIFT. Just a couple of questions. Do you have any idea how many landfills in the country would be badly affected by that court ruling?

Mr. SARPALIUS. Mr. Chairman, it would only affect, from EPA projections, about a thousand landfills across the country. So we are really only talking about small rural towns, and to qualify for the exemption, they have to meet certain requirements that are specified within the regulations.

Mr. SWIFT. Do you have any estimate of the cost for the owners of the small landfills to comply with the full regulations?

Mr. SARPALIUS. Mr. Chairman, that is one of the major problems for the small towns is the cost. It costs about \$50,000 a well. And then the monitoring equipment—in many of these small rural towns that is just unaffordable. As a matter of fact, probably about half of the landfills that would fall under these requirements would just be closed simply because they can't afford it.

Mr. SWIFT. What would they have to do with the garbage?

Mr. SARPALIUS. That is a good question because then you add some more expense by transporting—when you talk about small towns, you are talking about a lot of expense in transporting their waste to a landfill somewhere else.

Today, there are only about 233 landfills left in my State, in the State of Texas. In just 3 years that has—we have lost about half of the landfills. There were twice as many as that 3 years ago. Out of that 233 they project in Texas about 80 of them would have to close. That would be just simply because of the cost. That is just within my State.

Mr. SWIFT. Representing as I do also a rural area, I think that we both see from time to time how around here people think in terms of big this and big that and big everything else, and if you are small it is not so much that anybody is against you, they just forget you are there and adopt and propose policies which may or may not work for large cities, large towns, large companies, and so forth and so on, but don't apply worth a damn if you are a small town or a small company, and we need to watch out for those that don't have all the resources of the larger entities.

Recognize the gentleman from Ohio.

Mr. OXLEY. I have no questions. Thank you, Mr. Chairman.

Mr. SWIFT. Thank you very much, Bill. We will continue the hearing on what I think is an important issue you raise in your legislation.

Mr. SARPALIUS. Thank you.

Mr. SWIFT. Call to the witness stand now Mr. Peter Robertson, who is Deputy Assistant Administrator for the Office of Solid Waste and Emergency Response of EPA. You are welcomed. Your prepared statement has already been made a part of the record. If you would introduce your colleague, you may then proceed as you wish.

STATEMENT OF PETER ROBERTSON, DEPUTY ASSISTANT ADMINISTRATOR, OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, ENVIRONMENTAL PROTECTION AGENCY, ACCOMPANIED BY BRUCE R. WEDDLE, DIRECTOR, MUNICIPAL AND INDUSTRIAL SOLID WASTE DIVISION

Mr. ROBERTSON. Thank you very much, Mr. Chairman.

I have with me Bruce Weddle who is the Director of the Municipal and Industrial Solid Waste Division of EPA's Office of Solid Waste. I asked Bruce to come with me to answer any technical questions you may have, and since I have been on the job about 6 weeks now I would suggest that anything beyond what is your name qualifies as a technical question.

Mr. Chairman, a number of municipal solid waste landfills are located in small, dry or remote communities, primarily west of the Mississippi River, including Alaska, where conditions exist that call into question the need for and the practicality of installing and monitoring groundwater wells to detect releases from landfills. As I will discuss, the Agency has been looking into this matter and has reviewed Mr. Sarpalius's legislation regarding this issue.

In 1984, Congress amended Subtitle D of RCRA, directing the Environmental Protection Agency to review the municipal solid waste landfill criteria, taking into consideration the protection of human health and the environment and the practicable capability, in the words of the statute, of facility owners and operators.

In part, the statute directed that the revised criteria require groundwater monitoring as necessary to detect contamination. In developing the revised criteria, the Agency took into consideration the burden on small, remote communities that could not regionalize with other communities in disposing of their waste to take advantage of economies of scale. This approach seemed appropriate in light of the statutory direction to consider the practicable capability of facility owners and operators.

On October 9, 1991, EPA promulgated revised municipal solid waste landfill criteria, and the final rule under certain circumstances exempted owners and operators of qualifying small landfills in arid areas or in remote areas from the two most costly requirements—the liner design criteria and the groundwater monitoring requirements.

In May 1993, the U.S. Court of Appeals ruled in response to a petition for review of those landfill criteria that RCRA requires groundwater monitoring as necessary to detect contamination and that EPA could not use the practicable capability language in the statute to exempt facilities from the groundwater monitoring requirement. Thus, the court vacated the small landfill exemption as it pertains to groundwater monitoring. The U.S. Court of Appeals did not, however, preclude the possibility that the Agency could establish for these small dry or remote landfills separate groundwater monitoring standards that take into account size, location and climate, as long as these separate requirements ensured that an owner-operator could detect groundwater contamination.

This past June, the Agency held four public meetings to solicit information regarding alternative groundwater monitoring requirements. We had a total of approximately 60 speakers at our four meetings. They discussed the technical and the financial problems

the small communities face in trying to comply with the full groundwater monitoring requirements, and they urged EPA to provide States with enough flexibility to make cost-effective groundwater monitoring alternatives available to small landfills. The commenters noted that any alternative to traditional groundwater monitoring wells will entail expenditures of at least, small amounts of money. In some rural areas of the country, for example, Alaska or even west Texas, where the per capita income may be exceptionally low, even the most inexpensive alternative groundwater monitoring technology will present an economic challenge to the residents and their communities.

H.R. 2654, Mr. Sarpalius's legislation, would codify the groundwater monitoring exemption struck down by the Court of Appeals. The Agency agrees with the thrust of H.R. 2654 that groundwater monitoring relief for these small communities is warranted. Therefore, based on the comments that we have received during the four public meetings and on related site visits, EPA is currently working on new regulations and guidance that we believe can address many of the problems faced by these small communities as they seek to comply with groundwater monitoring requirements.

The regulation that we are currently working on will, we expect, provide States and tribes that have EPA-approved municipal solid waste landfill permit programs the flexibility to permit cost-effective alternative early detection technologies in lieu of groundwater monitoring well systems. We plan to have a proposed rule completed by late fall of 1994.

Mr. Weddle and I will be happy to try to answer any questions the subcommittee may have, Mr. Chairman.

Mr. SWIFT. Thank you very much.

[Testimony resumes on p. 25.]

[The prepared statement of Mr. Robertson follows:]

STATEMENT OF PETER ROBERTSON
DEPUTY ASSISTANT ADMINISTRATOR
OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE
BEFORE THE
SUBCOMMITTEE ON TRANSPORTATION AND HAZARDOUS MATERIALS
OF THE COMMITTEE ON ENERGY AND COMMERCE
U. S. HOUSE OF REPRESENTATIVES

JULY 27, 1994

Good morning Mr. Chairman and members of the Subcommittee.

I am Peter Robertson, Deputy Assistant Administrator for Solid Waste and Emergency Response at the U. S. Environmental Protection Agency (EPA). With me is Bruce R. Weddle, Director of the Municipal and Industrial Solid Waste Division of EPA's Office of Solid Waste. We are pleased to appear before the Subcommittee today to discuss several issues of importance to many communities across the country.

I. INTRODUCTION

The first issue for discussion today impacts communities that have chosen to recover energy through the use of municipal solid waste combustion. The second effects communities served by small landfills in the dry and remote regions of the country. Both of these issues arise from recent court decisions: one by the U.S. Supreme Court regarding the ash that remains after combustion of municipal solid waste and the other by the U.S. Court of Appeals for the D.C. Circuit regarding small landfills. Communities impacted by these court decisions have expressed concern regarding their ability to comply with these decisions.

II. MUNICIPAL WASTE COMBUSTOR ASH

A. Background

The combustion of municipal solid waste (MSW), particularly through resource recovery facilities (commonly referred to as waste-to-energy combustors), can be an important component of a local government's approach to managing its municipal solid waste. As of 1990, approximately 196 million tons of MSW were generated in the U.S. Sixteen percent (32 million tons) of this waste was combusted. There are approximately 120 waste-to-energy facilities in the U.S. which generate around eight million tons of municipal waste combustion (MWC) ash annually.

This eight million tons consists of two basic types of MWC ash -- bottom ash and fly ash. Bottom ash is the residual at the bottom of the combustion unit and comprises approximately 75-80 percent of the ash. Fly ash is the residual from the air pollution control devices. The concentration of heavy metals in both of these wastes, particularly in the fly ash, necessitates that these wastes be managed in a manner that is protective of human health and the environment.

The regulatory history for this issue begins in 1980. At that time, EPA promulgated a rule exempting household wastes from all requirements for hazardous waste management promulgated under the authority of Subtitle C of RCRA. Further, EPA interpreted this exemption to extend to residuals from the treatment of household wastes, including ash from the combustion of household waste. This exemption, however, did not address the management

combustion of household wastes combined with non-hazardous commercial and industrial wastes.

In 1984, Congress amended RCRA by adding Section 3001(i), exempting from the hazardous waste regulations those waste-to-energy facilities that burn household wastes and non-hazardous commercial and industrial wastes. EPA codified this provision in a rulemaking published in July 1985. In the preamble accompanying the rule, EPA announced that it interpreted the statute and the rule to exempt the facilities -- but not their ash -- from EPA's hazardous waste rules.

In the late 1980's, various EPA officials took differing positions on whether Section 3001(i) of RCRA could be interpreted to exempt ash from Subtitle C. Citizen suits were filed in U.S. District Courts in two different circuits to enforce the 1985 interpretation of the statute against two specific waste-to-energy facilities. Both district courts held that ash was exempt from the hazardous waste rules. On appeal, the Second Circuit upheld the exemption from the hazardous waste rules, but the Seventh Circuit reversed, finding that the statute did not exempt ash. The facility operator (City of Chicago) adversely affected by the Seventh Circuit's decision appealed to the U.S. Supreme Court.

Also in the late 1980's, Congress considered a number of bills to explicitly exempt ash from Subtitle C requirements. The 1990 Clean Air Act Amendments included a provision prohibiting

EPA from regulating ash as a hazardous waste for a period of two years.

In response to these events, a number of states authorized to implement Subtitle C hazardous waste programs began treating ash from waste-to-energy facilities as exempt from the hazardous waste rules. Some states used regulatory interpretations and others promulgated specific ash exemptions. Many of these specific exemptions were accompanied by detailed regulations for the management of ash as a non-hazardous waste. EPA also was reconsidering its position on the regulation of ash, and took no action affecting these state programs.

Finally, in September 1992, just before the expiration of the Clean Air Act Amendments MWC ash "moratorium," EPA Administrator William Reilly signed a memorandum announcing the Agency's opinion that, in adding Section 3001(i) to RCRA, Congress intended to exempt both bottom and fly ash from waste-to-energy facilities that burn household wastes and other non-hazardous wastes from the Subtitle C requirements. This memorandum also stated that ash could be disposed of safely in nonhazardous landfills meeting the new RCRA Subtitle D standards for municipal solid waste landfills.

On May 2, 1994, the Supreme Court held that Section 3001(i) of RCRA did not exempt ash generated at waste-to-energy municipal waste combustion facilities from the hazardous waste regulatory program. As a result of this decision, persons generating ash from waste-to-energy facilities must determine whether the ash is

hazardous. Generally, this determination is made by testing using the Toxicity Characteristic Leaching Procedure (TCLP). Ash that is determined to be a hazardous waste must be handled in compliance with EPA rules for hazardous waste management. Ash that is determined not to be a hazardous waste may be disposed in a non-hazardous waste facility.

B. Agency Response to the Supreme Court Decision

Since the Court's decision, the Agency has received many letters from Congress, state and local governments, industry, and others regarding the Court's opinion and its ramifications. The Agency is sympathetic to the concerns that the Court's decision raises for the regulated community. We understand the potential impact that the decision may be having on communities that rely on waste-to-energy facilities for their municipal solid waste management needs and on the industry that serves these needs. With that in mind, we are working with states, communities, and the private sector to provide guidance and are attempting to answer the many questions that arise.

The Agency recognizes that immediate compliance with the Court's decision may be difficult because many facilities have been operating consistently with the Agency's previous interpretation that ash was excluded from regulation under Subtitle C and because of the cost of compliance with RCRA Subtitle C. Therefore, the Agency has taken several steps in response to the Court's decision that we hope will serve the interests of the regulated community and the environment.

Immediately after the Court's decision, the Agency held a stakeholders meeting to solicit comments from those impacted by the decision, including states, municipalities, the combustion industry, and environmental/public interest groups. Shortly thereafter, the Agency issued three documents addressing a number of the questions and concerns raised at that meeting.

First, on May 24, 1994, the Agency released for immediate use a draft guidance manual for "Sampling and Analysis of Municipal Refuse Incinerator Ash." The purpose of the manual is to assist owners and operators of municipal waste combustors in designing a plan for testing ash to determine whether it is hazardous. On June 23, 1994, we published a Federal Register Notice that formally requested public comment on the Draft. The comment period is open until September 21, 1994.

Second, on May 27, 1994, we issued a memorandum outlining our strategy for implementing the Court's decision. The intent of this implementation strategy is to assist affected parties in achieving compliance with the Court's decision. The strategy identifies the Agency's priorities for pursuing enforcement actions concerning the management of MWC ash.

Specifically, the Agency will focus on a variety of factors to determine whether hazardous ash is being managed in an environmentally irresponsible manner so as to pose a potential threat to human health and the environment. These factors

- o any information that management of the hazardous ash may present an imminent and substantial danger;
- o failure to have implemented a program for determining whether a facility's ash is hazardous within three months of the effective date of the Court's decision (June 1, 1994);
- o failure to manage ash that is a hazardous waste in solid waste management units that meet 40 CFR Part 258 requirements;
- o failure to have controls on fugitive dust emissions during storage and transportation of ash that is a hazardous waste; and
- o reuse, in any manner, of ash that is a hazardous waste.

We have encouraged the Regions to work with the states to develop approaches for ensuring compliance with Subtitle C of RCRA. In six months, the Agency plans to revisit this strategy to evaluate its effectiveness and incorporate any necessary improvements or modifications.

Third, on June 7, 1994, the Agency published a notice in the Federal Register that addresses several issues relating to waste-to-energy ash that is hazardous. First, the Notice extends the deadline within which owners/operators of facilities that treat, store, or dispose of hazardous ash must file a hazardous waste permit application. This action gives owners and operators of facilities that manage hazardous ash six months to apply for "interim status" under the RCRA hazardous waste regulatory

program. Without "interim status," the facility would be out of compliance with RCRA's permit requirements and face potentially significant civil and criminal penalties. Second, the June 7 Notice announced that the Agency is interpreting ash from waste-to-energy facilities to be a newly identified waste for the purposes of the RCRA land disposal restrictions, meaning that the current land disposal restrictions do not apply. Under RCRA, the Agency will have six months to promulgate land disposal restrictions specific to ash determined to be a hazardous waste. When the restrictions apply, hazardous ash will have to meet specified treatment standards prior to land disposal.

C. Future Agency Activities

Currently, the Agency plans to undertake several future implementation activities. These activities will include:

- o preparation of the final Guidance on Sampling and Analysis, after a review and consideration of all comments received;
- o promulgation of land disposal restriction standards for treatment of hazardous ash prior to land disposal; and
- o preparation of implementation "guidance" that will serve to address the many questions received to date regarding the regulation of MWC ash.

We hope that these activities will help the regulated community comply with the Court's interpretation of RCRA. EPA is willing to engage in discussions with interested parties regarding alternative management schemes for MWC ash and to

committed to working with all stakeholders to provide assistance over the coming months to facilitate compliance with the applicable regulations.

III. ALTERNATIVE GROUND-WATER MONITORING AT SMALL, DRY/REMOTE MUNICIPAL SOLID WASTE LANDFILLS

The second issue on the Subcommittee's agenda this morning relates to ground-water monitoring at small, rural landfills. A number of municipal solid waste landfills are located in small, dry, remote communities primarily west of the Mississippi River, including Alaska, where conditions exist that call into question the need for and practicality of installing and monitoring ground-water wells to detect releases from these landfills. As I will discuss, the Agency has been looking into this issue and has reviewed Representative Sarpalius' bill on the issue.

A. Regulatory Background

In 1984, Congress amended Subtitle D of RCRA, directing EPA to revise the municipal solid waste landfill (MSWLF) criteria, taking into consideration the protection of human health and the environment and the "practicable capability" of facility owners/operators. In part, the statute directed that the revised Criteria require "ground-water monitoring as necessary to detect contamination."

As EPA developed the revised Criteria, one of the most significant issues raised was the impact on small community landfills. Where small remote communities could not regionalize to take advantage of economies of scale, we determined that the

economic impact on a substantial number of fiscally-strapped small communities could be considerable. Therefore, in promulgating the revised Criteria, the Agency took into consideration the burden on small communities. This approach seemed appropriate in light of the statutory direction to consider the "practicable capability" of facility owners and operators.

On October 9, 1991, EPA promulgated revised Criteria for MSWLFs. This Final Rule set forth minimum federal criteria for these landfills, including location restrictions, facility design and operating criteria, ground-water monitoring requirements, corrective action requirements, financial assurance requirements, and closure and post-closure care requirements. The Final Rule, under certain circumstances, exempted owners/operators of certain small MSWLF units from the two most costly requirements: the liner design criteria and the ground-water monitoring requirements.

To qualify for the small landfill exemption, the landfill had to accept less than 20 tons of solid waste per day, on an annual average basis, exhibit no evidence of ground-water contamination, and serve either: (1) a community that experiences an annual interruption of surface transportation of at least three consecutive months that prevents access to a regional waste management facility (e.g., remote Alaskan village) or (2) a community that has no practicable waste management alternative and the landfill is located in an area

that receives 25 inches or less annual precipitation (e.g., small communities in rural west Texas).

In adopting this limited exemption, the Agency maintained that it had complied with the statutory standard to protect human health and the environment, taking into account the practicable capabilities of small landfill owners and operators. In January 1992, the Natural Resources Defense Council (NRDC) filed a petition for review of the revised MSWLF Criteria in the U.S. Court of Appeals for the District of Columbia Circuit. The petition alleged, among other things, that EPA exceeded its statutory authority when it exempted these small landfills from the ground-water monitoring requirements.

On May 7, 1993, the Court of Appeals ruled that RCRA requires ground-water monitoring as necessary to detect contamination, and EPA could not use the "practicable capability" language in the statute to exempt facilities from ground-water monitoring. Thus, the Court vacated the small landfill exemption as it pertains to ground-water monitoring. (The Court did not require EPA to remove the exemption for design requirements.)

B. EPA's Response to the Court's Decision

Accordingly, in an October 1, 1993, Federal Register Notice (58 Fed. Reg. 51536) the Agency rescinded the small landfill ground-water monitoring exemption, thereby requiring these small dry/remote landfills to comply with the comprehensive ground-water monitoring requirements in the MSWLF Criteria. At the same time, however, to assure that owners and operators of such small

MSWLFs had adequate time to decide whether to continue to operate under the Court's ruling, and to prepare financially for the added costs if they decided to continue to operate, EPA delayed the effective date of the MSWLF Criteria for these facilities for two years to October 1995.

It is important to note that the U.S. Court of Appeals did not preclude the possibility that EPA could establish for these small, dry/remote landfills separate ground-water monitoring standards that take into account size, location, and climate, as long as these separate requirements ensured that an owner/operator could detect ground-water contamination. The Agency, therefore, as part of the October 1993 rulemaking, solicited comments on cost-effective alternatives to the ground-water monitoring requirements in the MSWLF Criteria.

C. Public Meetings on Alternative Ground-Water Monitoring

On May 9, 1994, the Agency announced that it would hold a series of four public meetings with interested parties to provide them with an additional opportunity to present the Agency with information regarding alternative ground-water monitoring requirements that would be within the practicable capability of affected small landfills. These four meetings were held in June in Salt Lake City, Utah; Anchorage, Alaska; Midland, Texas; and Washington, DC.

A total of approximately 60 speakers presented statements at the four meetings. Speakers included representatives of state and local governments, landfill owners and operators,

consultants, geologists, engineers, and others involved in waste management. These statements addressed the technical and financial problems small communities now face in trying to comply with the full ground-water monitoring requirements in the MSWLF Criteria. Commentors discussed potentially effective technical alternatives to conventional ground-water monitoring systems that are much more affordable to small communities (such as surface electric resistivity surveys and low-cost moisture detection devices known as gypsum blocks).

For example, the cost of a full ground-water monitoring well system under the current MSWLF Criteria for a typical 10 ton per day facility with depth to ground water of 140 feet, is approximately \$69,000 per year. By contrast, the use of soil moisture detection devices in lieu of ground-water monitoring wells could provide a low-cost early detection alternative. At a cost of approximately \$10 per gypsum block, plus \$250 for the instrumentation, the initial cost for this system, for the same 10 ton per day landfill, could be as low as a \$1,000 with minimal annual costs. Commentors stressed that significant additional expenditure requirements, which in some cases is up to \$100,000, could force these small landfills to close, leaving citizens in these communities with essentially no alternatives except indiscriminate dumping. Commentors stressed that EPA needs to provide states with enough flexibility to make these cost-effective alternatives available to small landfills.

Commentors also explained why the risks of ground-water contamination are relatively low to non-existent in the arid locations that were originally granted the ground-water monitoring exemption. These locations typically have high evaporation rates where very little precipitation enters the landfill, thereby reducing the amount of landfill liquid, or leachate, available for potential contamination of the ground water. In addition, many of these arid landfills are located where the depth to ground water is so great that leachate migration to the ground water would be highly unlikely.

It is important to note that any alternative to traditional ground-water monitoring wells will entail expenditures of some small amounts of money. In some extremely rural areas of the country, for example Alaska, where the per capita income is exceptionally low (only a few thousand dollars per year), even the most inexpensive alternative ground-water monitoring technology will present an economic challenge.

D. Future Action

Representative Sarpalius has introduced legislation, H.R. 2654, that would codify the ground-water monitoring exemption struck down by the D.C. Court of Appeals. We clearly agree with the intent of the bill that ground-water monitoring relief for these small communities is warranted. Therefore, based on comments received during the four public meetings, and on related site visits, the Agency currently is working on new regulations that will be used to address many of the problems facing these

small communities as they seek to comply with the ground-water monitoring requirements. The regulation will provide states and Tribes that have EPA-approved MSWLF permit programs the flexibility to permit cost-effective alternative "early detection" technologies in lieu of ground-water monitoring well systems. The Agency also plans to provide technical guidance to bolster implementation of the regulations. We plan to have a proposed rule completed by late Fall 1994.

IV. CONCLUSION

I hope this brief discussion of EPA's activities that relate to both regulation of municipal waste combustion ash and ground-water monitoring requirements for small, dry/remote municipal solid waste landfills is useful to the Subcommittee's inquiry. I would be happy to answer any questions the Subcommittee might have. Thank you.

Mr. SWIFT. Is what you are working on, would it roughly track the kind of categories of communities that Mr. Sarpalius has in his bill?

Mr. ROBERTSON. Yes, it certainly will, Mr. Chairman. We are concentrating on the small communities that either face a surface transportation interruption of 3 consecutive months or more—and, obviously, those communities are located primarily in Alaska, perhaps exclusively in Alaska—and those small, arid communities that receive less than 25 inches of rainfall per year. A typical example of that would be a small community in west Texas.

And we are talking, of course, about remote communities as well that can't take advantage of economies of scale by cooperating with another small community in a joint landfill.

Mr. SWIFT. Using that criteria, the 25 inches of rainfall, how much of the country would qualify for a cutoff at that point?

Mr. ROBERTSON. Well, we have a map, Mr. Chairman, that I would be happy to provide for you. If you can see these two red lines, one runs roughly down the middle of the country, and that is where the 25 inches per year starts. It ends on this other line, which roughly bisects the State of Washington and comes down the West Coast this way. This area includes nearly the entire western half of the United States.

Mr. SWIFT. What we think of as the old west?

Mr. ROBERTSON. Yes, sir.

Mr. SWIFT. Do you think you can administratively accomplish essentially everything that is contemplated in H.R. 2654?

Mr. ROBERTSON. Yes, sir, we believe we can in the regulations that we are developing.

Mr. SWIFT. And it is your intent to do that? Essentially cover all of the concerns that are addressed in that legislation?

Mr. ROBERTSON. Yes, it sure is.

Mr. SWIFT. What do you see as the timetable for getting that regulation in place?

Mr. ROBERTSON. Bruce may want to comment on that, but, as I understand it, we hope to have a proposed rule by late fall of this year, and we would then expect a final rule probably within a year. That is our expectation, and we hope to be able to meet those, Mr. Chairman.

Mr. SWIFT. Late fall has special meaning to this subcommittee because it was in late fall that Carol Browner promised us a Superfund bill, and we had to point out that late fall is somewhere in December, and I think we got it here in February. Do you think the same slippage is likely to occur?

Mr. ROBERTSON. I certainly hope not, and we don't expect that, Mr. Chairman.

Mr. SWIFT. OK. In the language of the 1991 rule and referring to communities in arid areas, it stipulates that the community may not have other practicable waste management alternatives. Does the use of the word practicable refer to the distance to other facilities?

Mr. ROBERTSON. Certainly one of the things it refers to is whether one community could engage in a cooperative arrangement with another community for a joint landfill.

Mr. SWIFT. How far is far?

Mr. WEDDLE. We chose not to define whether it is 40 miles or 100 miles. Road systems can make a big difference, oftentimes is more determinant than distance. And, therefore, we left it up to the individual States.

Mr. SWIFT. The States would make a determination on whether it was practicable?

Mr. WEDDLE. That is correct.

Mr. SWIFT. Do you define the term at all? Do you give any guidelines?

Mr. WEDDLE. We did not. Often when we provide guidance like that, it becomes regulatory in nature, because people just seize it and use it. So we felt it was better not to be precise.

Mr. SWIFT. Thank you very much.

I recognize the gentleman from Ohio.

Mr. OXLEY. Thank you, Mr. Chairman. Mr. Robertson, what was EPA's calculation of the cost of the benefits of the municipal landfill rule?

Mr. ROBERTSON. I don't have those figures immediately available, Mr. Oxley. I suspect that they are in the preamble or the regulatory impact analysis to that rule, and we could certainly provide that.

Mr. WEDDLE. But, clearly, the costs of the rule were very high compared to the benefits of the rule. The Agency went to some length in the preamble to discuss that, but we proceeded with the rule, given that we were required to, under the statutory language, to issue such a rule.

Mr. OXLEY. Thank you.

Several of today's witnesses stated a concern that the closing of landfills will increase truck traffic and might increase the inadvertent or intentional depositing of garbage near the roadside. Did the Agency consider these factors during the municipal landfill ruling?

Mr. WEDDLE. When we proceeded to include the small landfill exemption, one of our major concerns was that landfills which were the only alternative for waste management would close because of the cost of installing groundwater monitoring, and we would end up with litter in dry washes, riverbeds on the side of the road, so that was indeed a principal concern in our original rulemaking.

Mr. OXLEY. You mentioned in your testimony a number of public meetings that EPA has held to discuss options in light of the court case. What were the general comments at these meetings and did any environmental groups appear and testify?

Mr. ROBERTSON. I don't believe any environmental groups did.

Mr. WEDDLE. Right, they didn't. It might be helpful to tell you I chaired the hearing in west Texas, and it was interesting. What I heard was groundwater in west Texas is a very precious resource that agriculture depends on, and the State was not going to do anything to compromise that groundwater.

The second thing I heard was that that groundwater is very deep, often 40 to maybe even 800 feet deep, and drilling wells to monitor that groundwater is very expensive. And the citizens that testified essentially were saying how much do we have to spend to prove the obvious? Because in our area we get so little rainfall that nothing is going to reach the groundwater, and therefore it is purely a waste of funds.

Mr. OXLEY. Last, does the EPA actually support enactment of the legislation introduced by Mr. Sarpalius?

Mr. ROBERTSON. We have some concerns with Mr. Sarpalius's legislation that were noted in a March 1994, letter from my boss Elliott Laws, the Assistant Administrator. The first concern is that Mr. Sarpalius's legislation allows EPA to issue regulations. We would suggest that, rather, it ought to be self-implementing so that you don't have the delay that the rulemaking process will necessarily entail. And we also suggest that any legislation that this subcommittee considers should provide to the States the opportunity to require groundwater monitoring if they believed it necessary to protect groundwater resources.

So, other than that, we support the thrust of what Mr. Sarpalius is trying to achieve in his legislation, and we are going to continue with our rulemaking process pending whatever Congress may do.

Mr. OXLEY. Thank you. Thank you, Mr. Chairman.

Mr. SWIFT. Thank the gentleman.

I recognize the gentleman from Idaho.

Mr. CRAPO. I have no questions, Mr. Chairman.

Mr. SWIFT. The gentlewoman from Arkansas is recognized.

Ms. LAMBERT. Thank you, Mr. Chairman. I would like unanimous consent to submit my statement for the record.

Mr. SWIFT. Without objection.

Ms. LAMBERT. Thank you. I don't know quite where Arkansas falls on that red line that you pointed out.

Mr. ROBERTSON. It falls wholly without the 25 inches per year.

Ms. LAMBERT. Well, I thought it did.

Although I have many concerns about rural landfills and especially in the small communities, because that is exactly what I represent, I do think that we have a sufficient amount of groundwater and rainfall in order to probably categorize us outside of there. But I just want to, for the record, make sure that it is indicative that I have been very supportive for small communities and their problems with landfills.

No further questions.

Mr. SWIFT. Thank you.

[The prepared statement of Ms. Lambert follows:]

STATEMENT OF HON. BLANCHE M. LAMBERT

Thank you Mr. Chairman very much for holding this hearing on municipal ash. As you may know, there are two cities in my district, Osceola and Batesville, that may be impacted by this decision. I would like to ask unanimous consent to insert the statements of both mayors, Mayor Kenemore and Mayor Barnett, into the record.

Since the Supreme Court decision concluded that ash generated from municipal waste to energy incinerators no longer retained its Subtitle C exemption if tested hazardous, I have heard the fear and anxiety from my district about the ultimate consequences of this decision. Disposal in a Subtitle C facility would be considerably more expensive for communities thus potentially causing the eventual closure of such incinerators. The communities I represent do not have money to spare to send ash to these Subtitle C disposal facilities nor do they have the resources available to finance alternative disposal techniques other than their incinerators.

According to the mayors in my district, their ash has been tested in the past and has tested non-toxic. I hope that any legislative fix would provide for a periodic testing, allowing for the mixture of the ash. In addition, any legislative proposal should not affect current, effective disposal of municipal ash. In Batesville and Osceola, their ash is disposed of in a monofill, maintained purely for incinerator ash. They

have effectively dealt with their ash, and I hope that they will be able to continue to conduct their business in the same way in the future.

I appreciate the time and effort that industry and the environmental community have contributed to address this issue and to work through potential legislative language. I would like to work with them to ensure that incinerator ash is disposed of in an environmentally sound manner without causing economic upheaval in our communities. Thank you very much Mr. Chairman and I look forward to the testimony given today.

Mr. SWIFT. Who brought the lawsuit, do you recall?

Mr. ROBERTSON. The Natural Resources Defense Council, I believe, Mr. Chairman.

Mr. SWIFT. All right. Thank you very much.

We call our second panel which includes Peggy Garner, who is a Commissioner of the Texas Natural Resource Conservation Commission; Mr. John Torbert, who is the Executive Director of the Kansas Association of Counties—he is appearing on behalf of the National Association of Counties—the Honorable Bob Deavenport, County Judge of Martin County, Tex.; and Ms. Heather Stockard, who is Chief of the Solid and Hazardous Waste Management Section of the Alaska Department of Environmental Conservation; and finally Ms. Lisa Kahn, Policy Associate for Groundwater with Friends of the Earth. We welcome you all to the witness table and remind you that all of your prepared statements have been made a part of the record.

You may proceed to summarize as you choose, and we will recognize you in the order that I introduced you, beginning with Ms. Garner.

STATEMENTS OF PEGGY GARNER, COMMISSIONER, TEXAS NATURAL RESOURCE CONSERVATION COMMISSION; JOHN TORBERT, EXECUTIVE DIRECTOR, KANSAS ASSOCIATION OF COUNTIES, ALSO ON BEHALF OF NATIONAL ASSOCIATION OF COUNTIES; BOB DEAVENPORT, COUNTY JUDGE, MARTIN COUNTY, TEX.; HEATHER STOCKARD, CHIEF, SOLID AND HAZARDOUS WASTE MANAGEMENT SECTION, ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION; AND LISA A. KAHN, POLICY ASSOCIATE FOR GROUNDWATER PROJECT, FRIENDS OF THE EARTH

Ms. GARNER. Thank you. Chairman Swift and honorable members of the subcommittee, I am very pleased to be with you today.

I sincerely appreciate the opportunity to provide testimony on a subject area that is of immense concern to the citizens and communities of the State of Texas. I believe these issues are probably also of great concern to other States that have large geographic regions with relatively sparse populations.

My name is Peggy Garner. I am a Commissioner on the Texas Natural Resource Conservation Commission, the TNRCC. The TNRCC is the State agency in Texas with the primary responsibility for environmental regulation. We oversee activities regarding water use, water quality, air quality, underground injection of waste, radioactive waste disposal, industrial waste disposal, hazardous waste management, management of underground and aboveground petroleum storage tanks, and the requirements of the Safe Drinking Water Act.

We also manage the municipal solid waste regulatory program in Texas. We were among the first States to receive approval from EPA to run the permitting program in lieu of EPA. We are, therefore, the primary agency responsible for the effective implementation of Subtitle D of Federal RCRA in the State of Texas.

H.R. 2654 has significant implications for any State with conditions similar to those in the State of Texas. Those conditions which have an impact are: sparse population areas with large geographic extent, local governments with small tax bases, very few landfills and people per square mile, relatively small amounts of garbage generated, inadequate business volume to attract commercial waste management operators to provide service, arid climatic conditions, very low average rainfall annually, very high evaporation rates year round, heavy dependence on local government entities with small tax bases to provide garbage service.

I believe every State and local government entity in the Nation understands that the implementation of Subtitle D regulations have imposed very costly and new operational requirements on municipal and county landfills.

Much of Subtitle D is very appropriate and necessary to protect groundwater resources. Many rural Texans rely on groundwater as their exclusive source of supply. They are very protective of this resource.

However, the recent ruling has established a precedent which imposes a costly regulation on small and rural communities of the Nation. In simple fact, this burden is unnecessary to protect the natural resources of arid regions.

In the Subtitle D regulations, EPA has established an exemption from groundwater monitoring requirements for communities with the characteristics described in H.R. 2654. EPA recognized then that in areas where the landfills will be small, with rainfall low and with high evaporation rates, groundwater monitoring is an unnecessary expense.

The Texas Natural Resource Conservation Commission in our rules followed EPA's guidelines. We allowed those exemptions, and when a landfill could show by testing existing wells in an area that there was no contamination of groundwater and by other ways.

We held 11 public meetings, seven public hearings throughout the State of Texas. We had two committees that covered every area of the landfill situation from the public environmental groups, private operators, city public works people, local elected officials, almost every aspect that could be considered. We had absolutely no opposition at any of the public meetings or public hearings, and that included any environmental groups. We had no opposition.

A few years ago the incidence of illegal disposal and roadside dumping were few and controllable. Today, in sparsely populated areas it is commonplace to find garbage dumped by the road and in the streambeds of arroyos and other nonperennial waterways.

A few years ago, Texas had more than 1,000 landfills for municipal waste. Today, we have 243. A few years ago things were different.

The benefits of regionalization have been established in Texas, and Texas cannot afford at this time to lose any more landfills. The rainfall line in the State of Texas covers a vast area the size of sev-

eral other States put together. It is very sparsely populated there, and the small cities cannot afford to join together for regional landfills.

Unfortunately, small Texas communities cannot afford the cost of groundwater monitoring. We have more than 80 communities in Texas which meet the characteristics of H.R. 2654. Many are located in areas where the shallowest groundwater is hundreds to thousands of feet deep. In some areas, there is no groundwater to monitor.

In Alpine, Tex., in an area near the landfill—right adjoining the landfill, a few years ago an oil well was drilled to 4,500 feet. It was a dry hole, but water was hit at 1,500 feet. It was brackish water. The evaporation rate around Alpine is around 80 inches.

Mr. SWIFT. How did that town get to be named Alpine?

Ms. GARNER. It is the Alps of Texas. It is beautiful country, but we don't have a lot of rainfall.

In some areas there is no groundwater to monitor, and in other areas, the groundwater is of poor quality, and the expense to monitor it just cannot be justified.

Those 80 communities are already experiencing astronomical increases in the cost of landfill operation because of Subtitle D implementation, and if they have to install an expensive groundwater monitoring program when conditions in the area dictate that it is pointless, they will close.

TNRCC projects and surveys suggest that 40 to 60 of those 80 landfills will stop providing service. These small landfills provide service to a land area larger than many other States combined.

Because of sparse population and low business volume, the commercial landfill operators won't locate in those communities. The distance to the nearest landfill for many citizens is 100 miles and more than 100 miles for some.

Under these conditions, we know where the garbage is going. It is going to go in the waterways and on roadways. And under these conditions it is important to make clear that EPA is trying to institute policies and procedures that address this dilemma sensibly. The Federal court has made that task largely impossible.

The alternatives EPA is able to offer will be costly. Many landfills will close in spite of those good efforts. But we appreciate the close contact we have had with EPA, and we appreciate the move they are making now, and we feel that it will work well with this legislation.

I, therefore, and the Texas Natural Resource Conservation Commission therefore wholeheartedly support the passage of H.R. 2654 and encourage you to make it happen quickly. The State of Texas stands ready and willing to assist you and your staff in this effort. EPA must be given the tools it needs to execute your mandates sensibly and effectively. The Federal court ruling disables EPA from doing so. A Federal statutory revision is necessary to return common sense to this effort.

And I would like to reiterate again that we support H.R. 2654, that we feel that States need flexibility to deal with specific situations and that would occur in this bill. It could be that instead of beautiful vistas and broad horizons and scenic mountains and desert beauty in the parts of Texas that are sparsely populated and

arid, rural Texas could become a country of polluted streambeds and illegal trash dumps.

We support H.R. 2654, and I stand ready for questions.

Mr. SWIFT. Ms. Garner, thank you very much.

I just might observe it seems like the Federal courts are creating problems faster than this committee can deal with them. We have this one, we have the interstate issue, we have the flow control issue, we have the ash issue, all things that Congress addressed, and the courts in their finite wisdom have seen fit to create chaos.

Mr. Torbert, we are happy to recognize you.

STATEMENT OF JOHN TORBERT

Mr. TORBERT. Thank you, Mr. Chairman, members of the subcommittee. My name is John Torbert, and I am the Executive Director of the Kansas Association of Counties. I am here today representing not only my organization but also the National Association of Counties.

We do appreciate the opportunity to comment on H.R. 2654 which would allow the EPA to exempt small, arid, remote landfills from the Subtitle D groundwater monitoring requirements. Legislation like this is extremely important to counties in Kansas and other local governments in arid areas. As you know, it is generally the county government that is required by State law to manage the State solid waste and to find safe and dependable sites for its disposal.

There are 45 landfills in Kansas that accept fewer than 20 tons per day of municipal solid waste and are located in areas that receive less than 25 inches of rainfall annually. Some of our sister counties in States like Texas, Utah, Nebraska and Arizona have similar numbers of small landfills. These landfills are typically in rural counties and receive mostly residential waste with small amounts of commercial solid waste.

The presence of hazardous contaminants in such waste is very limited. With the low precipitation rate there is a very small potential for rainfall to vertically drive any contaminants in the landfill to the groundwater.

The key issue for county governments in my State and others is the decreasing availability of landfill sites in rural areas. As you know, Mr. Chairman, EPA's Subtitle D criteria promulgated in 1991 are having their desired effect. Thousands of landfills have closed throughout the United States. The environment may have benefited from the closing of most of these older, unlined landfills, but the results are that for thousands of people in large areas of rural America the distance to newer sites and the increased cost of dumping, safe handling of garbage and trash is now less convenient and more expensive.

The consequences of this are uncertain, but what is obvious to us is that even an unlined landfill is more protective of human health and environment than uncovered trash strewn across a roadway attracting rodents and insects.

While we have no statistical information yet on the amount of illegal dumping in drainage ditches, along rural county roads and in gullies that has resulted from these closings, we hear anecdotally from county officials that dumping is on the increase. County com-

missioners report that they must pay higher labor costs for road crews that must first pick up discarded garbage and trash from the public right of way before routine road maintenance can be performed.

It is for this reason that we ask you not to cause more landfills to be closed, particularly if they do not pose any real environmental danger. We ask you to pay special attention to those landfills that serve rural America in the West and the plains States. The legislation you are considering will allow EPA to exempt very small landfills in dry and remote areas from the groundwater monitoring requirements that large facilities or those in wet areas are required to undertake.

The Kansas Department of Health and Environment estimates that the cost of analysis for full Subtitle D groundwater monitoring is \$800 to \$1,200 per sample per well. With a minimum of three wells and the mandatory semiannual sampling, monitoring for a tiny landfill could easily cost over \$7,000 per year.

I would point out that is just the monitoring cost. That is not the cost of actually drilling the wells. In a county of under 4,000 people with a budget of less than \$100,000 annually, this is no small expense. It can, and will, make the difference in whether that landfill stays open or closes.

We believe that EPA can develop environmentally sensitive yet practical alternatives to the standard monitoring protocols. As you know, EPA is already in the process of developing regulations for very small landfills in arid and remote areas with regard to groundwater monitoring. We are actively involved in that process, and we believe this legislation will help move that process along.

We commend the Congressman for bringing this bill forward and urge the subcommittee to act favorably on House Resolution 2654. Thank you for the opportunity to comment.

Mr. SWIFT. Thank you very much, Mr. Torbert.

We are happy to recognize Mr. Deavenport. You are recognized.

STATEMENT OF BOB DEAVENPORT

Mr. DEAVENPORT. Thank you very much, Mr. Chairman. I appreciate the opportunity to submit testimony concerning H.R. 2654. I have submitted written testimony along with certain statistical data, and for the purposes of brevity I will just summarize that.

Mr. SWIFT. Thank you.

Mr. DEAVENPORT. My home county has a population slightly under 5,000. We have 900 square miles. That gives us a population density of slightly over five people per square mile. Our annual rainfall is about 15 inches. Our evaporation rate exceeds 70 inches. In looking at one of the tables we find that even in our, quote, rainiest month our evaporation rate is more than four to one.

Where our local landfill is situated there is not any groundwater encountered to 3,100 feet. It is a clay depth. This is based on the dry hole oil well that was drilled there. I sincerely feel that there is no way our landfill can create any groundwater contamination. In fact, I am much more comfortable with our type of landfill than I am with some of the so-called high-tech landfills that are actually sitting in the water strata.

I urge the passage of H.R. 2654 and that perhaps it would put to rest, give our communities a chance to go ahead and do some definite planning. We thought we had it before. We have the same problem you have had, Mr. Chairman—the Federal courts. That was a bolt of lightning out of the blue. We thought we had our situation whipped.

You made an earlier comment as to how far is far. One of the problems that a lot of our communities are addressing is how deep is deep. If we were to drill test wells until we could get water in our landfill it indicates it would be around 3,000 feet. Ours is one of the more extreme. There are a number of landfills where the known water exceeds 500 feet, other cases where it exceeds 1,000 feet, and to drill that type of monitoring well is prohibitively expensive.

I would like to point out a financial implication for most of these small communities. Practically all of them are based upon an agricultural income that is certainly not booming now.

Most of these communities have a sharply rising percentage of population over the age of 65. Comparing some of the communities in Texas I noticed that they all exceeded the State average with one exception. Many of these people are living on minimum social security income with trash service being based on a fee basis. Any increase in the fee is going to take disposable income that these people have, and, in most cases, it is barely enough to cover their basic necessities now.

There is a social issue involved in this matter. I again would ask that you give favorable consideration to this proposed legislation and that for the communities like mine perhaps it would let us get on with planning how we can most effectively handle our solid waste. Thank you very much.

Mr. SWIFT. Mr. Deavenport, thank you very, very much.

[The prepared statement of Mr. Deavenport follows:]

STATEMENT OF BOB DEAVENPORT

In the fall of 1989, I joined with mayors of small cities and county judges of rural counties in West Texas to form the Sparsely Populated Entities Coalition to study the implications of Subtitle D as it would apply to our landfills. After considerable study and engineering assistance, the group felt that there was justification to exempt small arid landfills from some of the more stringent requirements of Subtitle D.

In February, 1990, the group made a presentation to the Environmental Protection Agency and received a favorable reception.

In October, 1991, EPA published its final federal regulations to Subtitle D and did grant certain exemptions to what was referred to as AE-MSWLF's for design criteria and ground-water monitoring. The AE's must continue to comply with four other criteria: location and siting, operations, closure and post closure care, and financial assurance.

In May, 1993, the District of Columbia Circuit Court ruled that the EPA exceeded its statutory authority under RCRA in granting "blanket exemptions" from ground-water monitoring to AE's. In July, 1993, EPA proposed certain extensions of effective dates and withdrew the previous ground-water monitoring exemptions. In October, 1993, EPA issued the formal rules carrying out the above actions and requested comments on ground-water monitoring alternatives.

We sincerely believe that EPA was correct in initially granting the exemptions from ground-water monitoring to those landfills that:

Receive less than 20 tons of municipal solid waste daily;

There was no evidence of ground-water contamination; and

There was no practicable alternative and was in an area that received less than 25 inches of precipitation annually.

There was also a provision that provided exemptions for communities whose surface transportation was interrupted for at least three consecutive months per year. It is my understanding that the surface transportation provision is for Alaskan villages that could be faced with the possibility of flying out their MSW during the winter months.

My home county would be very typical of many communities in the western part of the country. We have a population of 4,956 over a 900 square mile territory, giving

us a population density of only slightly over five people per square mile. Our annual rainfall is approximately 15 inches per year, and our evaporation rate is in excess of 70 inches per year.

Those of us in this area consider our ground water a very precious resource and would not want to do anything to contaminate our limited supply. However, with our local landfill being located in an area where there is no ground water, with our low annual rainfall and our high evaporation rate, we do not feel that there is any possibility for ground-water contamination.

A dry hole oil well adjacent to our landfill logged clay to 3,100 feet. This past week, I watched our landfill operator make a cut into several days' layers of trash, and the trash was dry. We do not accept any liquids in our landfill. Our landfill does not generate leachate.

The landfills that would be implicated by this exemption are quite small, with none of them receiving over 20 tons per day. In the smaller landfills such as these, the incoming MSW is much more closely monitored than it is in the high volume disposal sites. These landfills are receiving household waste and a limited amount of waste from retail businesses. They do not receive industrial or hazardous waste.

For many of the communities in the western part of Texas, the distance down to ground water in many cases exceeds 250 feet, and there are several instances where there is no potable ground water in the vicinity of the landfill. One of the reasons that so many West Texas landfills are located in the dry areas was the fact that the lack of ground water made the land become available at a much lower price. Long before there was any concern about possible ground-water contamination, land prices had caused many landfills to be located in areas where there was no ground water.

In the western part of our country, many small towns can readily be over 100 miles from a large landfill. Transportation costs can become immense. The most effective solution is to give these communities the opportunity to dispose of their MSW locally, utilizing sites that are probably safer than "high tech" landfills that are sitting in the water strata.

Most of the rural communities that I represent are based on an agriculture economy that is anything but booming. The population is increasingly elderly, with a good portion of the elderly living on a low fixed income. Any increase in trash service fees would shrink their funds, that in all too many cases barely cover their basic needs. It is estimated that to fully implement ground-water monitoring for small landfills would require an increase of \$5.00 to \$25.00 per household per month.

Favorable consideration of H.R. 2654 would give many rural communities the opportunity to continue an essential service at a reasonable cost.

INFORMATION RELATED TO TWO TYPICAL ARID AREA COUNTIES

CULBERSON COUNTY, CITY OF VAN HORN

County Population	3,407
Area	3,812 sq. mi.
Population Density	1
% under 18	36%
% over 65	9%
Median Per Capita Income	\$7,632.00
% of Families under Poverty Guideline	26%
Nearest optional landfill	110 miles
City water wells are 500 feet deep.	

MENARD COUNTY, CITY OF MENARD

County Population	2,252
Area	902 sq. mi.
Population Density	2
% under 18	25%
% over 65	24%
Median Per Capita Income	\$9,318.00
% of Families under Poverty Guideline	24%
Nearest optional landfill	85 miles
No wells within one mile.	

WEATHER INFORMATION - NATIONAL WEATHER SERVICE
MIDLAND/ODESSA, TEXAS
30-YEAR AVERAGE WEATHER INFORMATION BY MONTHS

	<u>Average Evaporation</u>	<u>Average Precipitation</u>
January	3" - 3 1/4"	0.63"
February	3 1/4" - 3 1/2"	0.64"
March	5" - 5 1/2"	0.47"
April	6 1/4" - 7"	0.82"
May	7 1/2" - 8 1/2"	2.10"
June	9 1/4" - 9 1/2"	1.64"
July	10" - 10 1/2"	1.87"
August	9 3/4" - 11"	1.62"
September	7 3/4" - 8 1/2"	2.16"
October	6 1/4" - 7 1/4"	1.65"
November	4 1/2" - 4 3/4"	0.60"
December	<u>3 1/2" - 3 3/4"</u>	<u>0.64"</u>
Total	76" - 83"	14.84"

Mr. SWIFT. We recognize Heather Stockard.

STATEMENT OF HEATHER STOCKARD

Ms. STOCKARD. Thank you, Mr. Chairman.

My name is Heather Stockard, and I am Chief of Solid and Hazardous Waste Management for the State of Alaska Department of Environmental Conservation and speaking today on behalf of the State of Alaska and the Department of Environmental Conservation.

Thank you for allowing me to address the subcommittee today about the importance of the small landfill groundwater monitoring exemption to small communities in Alaska, many of which are both remote and arid.

First, let me set the stage by telling you a bit about Alaska and environmental and sanitation conditions in our many small, remote communities, including Alaskan native villages.

Alaska has a land area of over 570,000 square miles, or about 10 times the size of Florida with only 4 percent of Florida's population. The bulk of Alaska's 550,000 residents live in cities, and 85 percent of the municipal solid waste in Alaska is disposed at the 7 largest permitted facilities which accept more than 20 tons per day of waste.

However, the remainder of Alaska's population is spread across the State in very small, generally remote, communities. There are about 125 incorporated communities in the State with populations of less than 1,000. In addition, there are more than 80 settlements which are unincorporated communities. In most cases, these unincorporated communities have no organized government and no means of collecting taxes to support environmental compliance. Charging fees to cover the cost of operating a landfill in full compliance with Federal regulations would in many cases merely result in illegal dumping elsewhere.

We estimate in Alaska that there are 289 very small municipal solid waste disposal sites which fall below the 20 ton per day limit in this bill. The majority of these accept less than five tons per day of waste. Most of these communities are remote and have no other disposal options available to them. Access by road to these isolated communities is virtually impossible due to the distances involved as well as the extensive wetlands in the area.

However, waste disposal is certainly not the only environmental challenge facing these small communities. Many of them lack basic sanitation facilities. The Office of Technology Assessment recently released a report called, "An Alaskan Challenge: Native Village Sanitation," which with your indulgence I would like to enter into the record.

Mr. SWIFT. Without objection.

Ms. STOCKARD. According to this report, about 25 percent of Alaska's 86,000 native residents live without running water and use plastic buckets called honey buckets for toilets. Inadequate sanitation facilities throughout rural Alaska have been linked to outbreaks of diseases such as hepatitis A, bronchitis, impetigo and meningitis. The OTA report notes that in about half of Alaskan native villages piped water does not exist inside homes, and residents must haul water from a central watering point or well.

I have a couple of pictures here of villages in the Yukon Kuskokwim Delta which is in western Alaska, which may tend to bring to mind Rwanda more than the United States. But, as you can see, the village—I can't call this a landfill. This is, frankly, an open dump which right now is being used both for the village's solid waste and for human waste from the honey bucket system. Another village, same situation.

Note that the villages are frequently located on boardwalks. They are built in wetlands. These are still, in many cases, arid regions receiving less than 25 inches per year of rain. However, there is standing water because of the permafrost underlying the area which also makes it very difficult or impossible to drill wells to monitor for groundwater. The white cartons are receptacles used for the honey bucket waste.

Obviously, these conditions need to be improved. We are not talking landfills here in these villages. However, we strongly feel that passing additional regulations will do little to resolve these sanitation problems.

Funding to improve the village sanitation is a very high priority for the State and the rural communities. Limited funds are available to these villages to meet the many environmental and health challenges. The average community operating budget in these small villages ranges from \$50,000 to \$80,000 per year. Generally, the only municipal employees are an administrator and a clerk.

Prioritizing expenditures based on risk to human health is a necessity. In many cases, solid waste disposal will not place the village's drinking water source at risk. We feel that if the drinking water is not at risk, then groundwater monitoring is not an appropriate use of the limited resources available to meet health and environmental needs.

On the other hand, if drinking water is threatened by waste disposal in the village, the State, in partnership with the community, has a significant interest in seeing that the drinking water source is protected.

The State of Alaska has an established track record of effective partnerships with small communities, including Alaskan native villages. Over the past 3 years, we have instituted a community agreement program to establish trust relationships with the local governments and other entities. We have developed agreements not only with cities and villages but also with regional organizations such as the Tanana Chiefs Conference and Southeast Conference.

We feel strongly that sensible decisions about groundwater protection and monitoring must be made on a case-by-case basis, taking into consideration cost and risk. The State of Alaska believes that the Environmental Protection Agency is not capable in this case of developing one-size-fits-all regulations to deal with landfills in remote areas.

We also disagree that EPA can address our concerns on groundwater monitoring through administrative action. In a recently disseminated joint policy statement on State and EPA relations, EPA administrator Carol Browner said that, "As it pursues national environmental objectives, EPA wants to enable individual States to build environmental programs that are uniquely suited to the human health and environmental threats found in each State."

The State of Alaska believes that the small landfill situation underscores the need for this sort of tailored regulation. Alaska and other States with small, remote communities can best determine appropriate monitoring requirements for these facilities. In most cases, full-fledged groundwater monitoring will not be practical in our remote communities. Cost-effective alternatives must be considered when necessary to protect a drinking water source.

The impact financially of these regulations on rural Alaska is staggering. When I calculated the total capital costs for the 289 small municipal solid waste disposal sites in Alaska, I came up with an estimate of \$6.5 million just for the installation of monitoring wells. To put that into perspective, that amount is about a third of the annual construction budget for village sanitation facilities in Alaska. Therefore, we feel that there are much more effective ways that that money, if available, could be used to protect human health and the environment in rural Alaska by upgrading water and sewer facilities.

When we looked at the sampling and analysis costs that would be required for these facilities, we estimated \$10,600 per facility per year just for the sampling. And, as you recall, I noted that these villages have budgets of \$50,000 to \$80,000 per year for all services. Therefore, the groundwater monitoring at a solid waste facility would consume 13 to 20 percent of the community's total budget.

The aggregate cost of groundwater monitoring at these small facilities in Alaska would exceed \$3 million per year which could go far to improving living conditions in the villages. Therefore, we feel the groundwater monitoring is not feasible in much of Alaska. Imposing these additional requirements on small communities will merely increase noncompliance.

The State of Alaska strongly supports Mr. Sarpalius's bill to reinstate the groundwater monitoring exemption for small landfills. In addition, we believe that Congress should fully exempt these small, very remote communities from Federal regulation. We believe that the States are in a much better position than the Federal Government to evaluate the local conditions and develop appropriate standards for these very small, generally low-risk facilities. In our rural facilities the top priority is to get the human waste out of the dump, then work on improving conditions at the solid waste disposal facility.

In summary, most communities in Alaska want to comply with environmental laws. The people have close ties to the land, subsist off the land and care deeply about their environment. We would ask that you not implement more standards that will be impossible for these communities to meet and instead give the State the flexibility we need to work in partnership with these communities to make cost-effective environmental protection decisions.

Thank you.

Mr. SWIFT. Thank you very much.

[The prepared statement of Ms. Stockard follows. The report entitled "Alaskan Challenge: Native Village Sanitation," is retained in the subcommittee files.]

STATEMENT OF HEATHER STOCKARD, CHIEF, SOLID AND HAZARDOUS WASTE
MANAGEMENT SECTION, ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Good morning. My name is Heather Stockard and I am Chief of the Solid and Hazardous Waste Management Section of the Alaska Department of Environmental Conservation. I am speaking today on behalf of the State of Alaska and the Department of Environmental Conservation. Thank you for allowing me to address this subcommittee about the importance of the groundwater monitoring issue to small communities in Alaska.

Let me first set the stage by telling you a bit about Alaska, and environmental and sanitation conditions in our many small, remote communities, including Alaska Native Villages. Alaska has a land area of over 570,000 square miles, or 10 times that of Florida, with only 4 percent of Florida's population. The bulk of Alaska's 550,000 residents live in cities, and 85 percent of the municipal solid waste in Alaska is disposed at the seven permitted facilities which accept more than 20 tons of waste per day. However, the remainder of Alaska's population is spread across the State in very small, generally remote communities. There are about 125 incorporated communities in the State with populations of less than 1,000. In addition, there are more than 80 settlements which are unincorporated communities. In most cases, these unincorporated communities have no organized government and no means of collecting taxes to support environmental compliance. Charging fees to cover the cost of operating a landfill in full compliance with Federal regulations would, in many cases, merely result in illegal dumping elsewhere.

We estimate that there are 289 very small municipal waste disposal sites in the State which fall below the 20 ton per day limit in this bill; the majority of them accept less than 5 tons per day of waste. Most of these communities are remote and have no other disposal options available to them. Access by road to these isolated communities is virtually impossible due to the distances involved, as well as extensive wetlands found in the region.

However, waste disposal is certainly not the only environmental challenge facing these small communities; many of them lack basic sanitation facilities. The Office of Technology Assessment recently released a report called "An Alaskan Challenge: Native Village Sanitation". According to that report, about 25 percent of Alaska's 86,000 native residents live without running water and use plastic buckets (called "honey buckets") for toilets. Inadequate sanitation facilities throughout rural Alaska have been linked to the outbreak of diseases such as hepatitis A, bronchitis, impetigo, and meningitis. The OTA report notes that in about half of Alaska Native Villages, piped water does not exist inside homes, and residents must haul water from a central watering point or well. Additional information about these problems is contained in a video entitled "Village Sanitation in Rural Alaska". I would be happy to leave a copy of this video with you.

Passing additional regulations will do little to resolve these sanitation problems. Obviously, funding to improve village sanitation is a very high priority for the State and rural communities. Limited funds are available to these villages to meet the many environmental and health challenges. The average community operating budget in small villages ranges from \$50,000 to \$80,000 per year. Generally, the only municipal employees are an administrator and a clerk. Prioritizing expenditures based on risk to human health is a necessity. In many cases, solid waste disposal will not place the village's drinking water source at risk. If drinking water is not at risk, we believe that groundwater monitoring is not an appropriate use of the limited resources available to meet health and environmental needs.

On the other hand, if drinking water is threatened by waste disposal in the village, the State, in partnership with the community, has a significant interest in seeing that the drinking water source is protected. The State of Alaska has an established track record of effective partnerships with small communities, including Alaska Native Villages. Over the past 3 years, we have instituted a community agreement program to establish trust relationships with local governments and other entities. We have developed agreements not only with cities and villages, but also with regional organizations such as Tanana Chiefs Conference and Southeast Conference.

Our partnership agreement with Tanana Chiefs (TCC) sets out a process for TCC and DEC to establish common environmental protection objectives, including cost-effective environmental problem solving in the member villages of TCC. Our agreement with Southeast Conference has resulted in extensive interaction on solid waste topics, including household hazardous waste collection, recycling, and waste disposal options. These community agreements provide a foundation to allow DEC to work with local governments to make sensible decisions about groundwater protection and monitoring.

These decisions must be made on a case by case basis, taking into consideration cost and risk. The State of Alaska believes that the Environmental Protection Agency is not capable of developing "one size fits all" regulations to deal with landfills in remote areas. In a recently disseminated Joint Policy Statement on State/EPA Relations, EPA Administrator Carol Browner said that "As it pursues national environmental objectives, EPA wants to enable individual States to build environmental programs that are uniquely suited to the human health and environmental threats found in each State." The State of Alaska believes that the small landfill situation underscores the importance of tailored regulations. Alaska, and other States with small, remote communities, can best determine appropriate monitoring requirements for these facilities. In most cases, full-fledged groundwater monitoring will not be practical in remote communities; cost-effective alternatives must be considered when necessary to protect a drinking water source.

As an example, let's look at what traditional groundwater monitoring would entail at a proposed solid waste disposal facility in Saint Paul, on the Pribilof Islands. Saint Paul is probably a "best-case" example for rural Alaska: it is a medium sized (about 800 people), but relatively affluent community with a deepwater fishing port. Because of its natural resource related tax base, it has an annual municipal operating budget of about \$3.7 million, much higher than the average in rural Alaska. It has an airport large enough for jet traffic, and ship transportation is available. Continuous permafrost is not present on the island. Therefore, groundwater monitoring is, in theory, possible.

To install four monitoring wells at the Saint Paul landfill, a drill rig will have to be mobilized from Anchorage via ship or cargo plane at a cost of about \$8,000. We have received cost estimates ranging from \$16,000 to \$23,000 for installation and development of these four wells, or about \$125 per household.

An effective groundwater monitoring system would most likely require at least four wells be installed, even at smaller facilities. Costs in other remote locations would be even higher due to additional transportation expense. These installation and operations costs, spread across smaller populations, would cause per ton and per household costs to skyrocket.

As you can see, the impact of these regulations on rural Alaska is staggering. When I calculated the total capital costs for the 289 small municipal solid waste disposal sites in Alaska, I came up with an estimate of \$8.5 million just for the installation of monitoring wells. This amount is about one third of the annual construction budget for village sanitation facilities in Alaska. There are much more effective ways that this money, if available, could be used to protect public health and the environment in rural Alaska.

It is even more startling to look at the annual sampling and analysis costs for these 289 facilities. We obtained cost estimates for sample collection, shipping, and analysis of samples that would be required under the Federal regulations. Assuming four wells per facility, sampled twice annually, the estimated cost would be \$10,600 per facility per year. Remember that this is only for sampling costs, not for the other costs of running the disposal facility. Also recall that the average community operating budget in these villages is \$50,000 to \$80,000 per year for all services, not just solid waste. In other words, groundwater monitoring at the solid waste facility would consume 13-20 percent of the community's budget. The aggregate cost of groundwater monitoring at these small facilities in Alaska would exceed \$3 million per year. That much money could go far to improve living conditions in rural villages.

As you can see, required groundwater monitoring is not feasible in much of Alaska. Imposing these additional requirements on small communities will merely increase noncompliance. The State of Alaska strongly believes that Congress should take action to reinstate the groundwater monitoring exemption for small landfills. In addition, we believe that Congress should fully exempt these small, remote communities from Federal regulation. The States are in a much better position than the Federal Government to evaluate local conditions and develop appropriate standards for these very small, generally low risk facilities.

In summary, most communities in Alaska want to comply with environmental laws. The people have close ties to the land, subsist off the land, and care deeply about their environment. Let's not implement more standards that will be impossible for these communities to meet. Instead, please give the State the flexibility we need to work in partnership with communities to make cost-effective environmental protection decisions. Thank you.

Mr. SWIFT. Our last witness is Ms. Lisa Kahn. Welcome.

STATEMENT OF LISA A. KAHN

Ms. KAHN. Mr. Chairman, thank you for the opportunity to present Friends of the Earth's view on this topic.

I must say at the outset that Friends of the Earth did not take part in the lawsuit concerning the exemption from EPA's criteria. We have not had a specific position on this issue. But I do work on various municipal landfill issues, and I am currently writing a book for citizens on various landfills.

We are very aware of the economic plight of small rural communities in this country, and we sympathize with their frustrations in meeting Federal rules that appear to be extremely expensive. However, municipal landfills of all sizes in all parts of the country generate leachate which, if not monitored and controlled, potentially can end up polluting groundwater, drinking water wells and surface water. Once water supplies become contaminated by leachate, significant economic and health problems affecting families and communities can result.

Leachate is liquid that moves through the landfill, percolates down through the waste, and if there are no barriers at the landfill bottom, the leachate moves through the soil and rocks below the landfill until it reaches the groundwater zone.

Numerous studies of municipal landfill leachate have been performed across the country, and the results show that leachate commonly contains elevated concentrations of hazardous heavy metals and organic chemicals such as solvents.

Municipal solid waste landfills are listed on EPA's Superfund National Priorities List for priority cleanup operations and are, therefore, sites that present real or potential significant environmental and/or human health risks. As of February, 1993, 228 landfills which accepted municipal waste were on the National Priorities List of Superfund, and this is 21 percent of the total number of sites on the list.

The Subtitle D municipal landfill criteria already exempts small, remote and western landfills from the design standards that other landfills must comply with. Therefore, since these landfills may not be designed to control and capture leachate, it is absolutely essential that leachate movement be monitored so that once leachate migration and groundwater contamination occur, it could be spotted early and remediation can begin.

Friends of the Earth agrees with the recent communication of Henry Friedman, who was Alaska's Chapter Director of the Solid Waste Association of North America, which is an association of municipal landfill owners and operators. In his June, 1994, letter to the EPA, Friedman states, "We believe that all sanitary landfills should be monitored to verify that they are operated and maintained in a manner that does not pose a threat to human health or the environment."

Mr. Friedman also mentions in his letter that the Alaska Department of Environmental Conservation found that small dumps pose greater threats to public health and the environment than larger RCRA municipal landfills.

There is a general lack of data detailing the amount and quality of leachate generated by landfills located in different parts of the country and of various sizes.

EPA says that the 25-inch precipitation cap is generally supported by landfill case studies derived from State data. However, we have seen no data that convinces us of the accuracy of this 25-inch precipitation assumption. In fact, recent data from the States themselves provided directly contrasting conclusions.

The 25-inch or less annual precipitation zone includes at least half of the land area of 18 western States. These States are shown on the map attached to the back of my written testimony, the same map shown by the EPA.

Analysis of recent State 305(b) reports to the EPA on water quality shows that, of these 18 States that fall within that zone, 11 identified municipal landfills as major sources of groundwater contamination. These States included Alaska, Arizona, California, Idaho, Kansas, Minnesota, Nevada, North Dakota, South Dakota, Utah and Washington. This information provided to the EPA by the individual States contradicts EPA's assumption that landfills do not pollute the environment with leachate in areas that receive less than or equal to 25 inches of rain per year.

According to David Emme, Supervisor of the Bureau of Waste Management at the Nevada Department of Conservation and Natural Resources, the conditions which merit a scientific judgment that no migration of leachate would be likely are: less than 8 inches of average precipitation per year, a landfill located at least 300 feet above the water table, and no natural or man-made conduits for leachate migration under the site. This is significantly more stringent than the 25 inches per year in H.R. 2654.

Currently, several States have recognized that consolidated regional landfills are more advantageous than small isolated landfills in terms of environmental protection and economies of scale. States are therefore developing solid waste management programs with incentives for regionalization of rural waste facilities and are promoting systems of recycling, the use of drop-off boxes and transfer stations to collect waste from isolated areas.

However, the design standards exemption that exists in Subtitle D criteria and the groundwater monitoring exemption in H.R. 2654 work against recent trends toward regional landfills and provide incentives for continued use of inadequate small landfills that have a high groundwater pollution potential.

According to David Kreamer, a groundwater expert at the University of Nevada at Las Vegas, once groundwater becomes contaminated, especially in the southwest, it costs millions and millions of dollars to attempt to clean up these deep aquifers. He also says that people who have gone through the experience of groundwater remediation, particularly for deep aquifers, regret the fact that they did not monitor and catch the contamination earlier. Surely, this committee's deliberations on Superfund underscore this point.

The cost of remediating an aquifer that has been contaminated can be prohibitive. For small communities that cannot currently afford to install groundwater monitoring wells or perform other sampling, how will they deal with the costs of remediation and providing alternative water supplies to those families or communities whose wells are contaminated? How much does it cost to water livestock with bottled water?

In parts of the country where rainfall is scarce and groundwater is very deep or where the ground remains frozen for months at a time, traditional groundwater monitoring may not be the only way to monitor for leachate contamination. Alternative technology such as vadose zone monitoring are emerging which may be helpful to small communities where groundwater monitoring is expensive or impossible.

However, groundwater monitoring experts caution that these alternative technologies are highly complex and still new, and if installed in a haphazard fashion they will not work.

In conclusion, we at Friends of the Earth believe that it is a mistake to allow blanket exemptions from leachate monitoring at municipal landfills, regardless of their locations. Leachate from landfills has already contaminated the water supplies of numerous communities and families across the country. We must learn from past mistakes and not simply pretend that leachate contamination will not occur in certain parts of the country. Data from western States clearly prove otherwise.

Groundwater experts emphatically point out that it is much cheaper to prevent groundwater pollution and detect it before it migrates than to attempt to remediate a contaminated aquifer. Especially in areas where the groundwater is several hundreds of feet deep or otherwise difficult to monitor, groundwater remediation is prohibitively expensive and the results may not be satisfactory.

Thank you for the opportunity to present these ideas, and I would be happy to take your questions.

Mr. SWIFT. Thank you very much.

[Testimony resumes on p. 56.]

[The prepared statement of Ms. Kahn follows:]



Testimony
of
Lisa A. Kahn
Friends of the Earth

before the

House Committee on Energy and Commerce
Subcommittee on Transportation and Hazardous Materials

July 27, 1994

Small Landfill Groundwater Monitoring Exemption

Mr. Chairman and Members of the Committee, I am Lisa Kahn, Policy Associate in the Groundwater Project at Friends of the Earth. Friends of the Earth is a national, nonprofit organization that works -- in concert with affiliates in approximately 50 countries across the globe -- on environmental and energy issues.

On behalf of Friends of the Earth, I thank the Committee for offering our organization the opportunity to share its perspective on the current proposal for exempting small remote and western municipal landfills from groundwater monitoring under the Resource Conservation and Recovery Act's regulations under Subtitle D.

I must say at the outset that Friends of the Earth did not take part in the lawsuit concerning the small landfill exemption in EPA's October 1991 Criteria for Solid Waste Disposal Facilities, and we have not had a specific position on this issue. However, I do work on various municipal landfill issues, and I am currently writing a book for citizens on the subject.

We are very aware of the economic plight of small rural communities in this country, and we sympathize with their frustrations in meeting federal rules that appear to be extremely expensive. However, municipal landfills of all sizes and in all parts of the

country generate leachate, which, if not monitored and controlled, potentially ends up polluting groundwater, drinking water wells and surface water. Once water supplies become contaminated by leachate, significant economic and health problems affecting families and communities can result.

Leachate Monitoring is Needed at Municipal Landfills

Leachate is liquid that moves through a landfill originating from either precipitation or in moisture that exists in the waste. It percolates down through the waste, and if there are no barriers at the landfill bottom, the leachate moves through the soil and rocks below the landfill until it reaches the groundwater zone. Once in the groundwater, leachate flows with the groundwater on its slow path toward a surface water discharge.

Numerous studies of municipal landfill leachate have been performed across the country, and the results show that leachate commonly contains elevated concentrations of hazardous heavy metals and organic chemicals such as solvents. For instance, in a report to Congress on solid waste disposal in 1988, EPA combined the results of leachate studies from 70 municipal solid waste landfills to characterize landfill leachate.¹ These studies found 82 different chemicals in landfill leachate, including 63 different types of volatile organic chemicals (VOCs). The median concentration of 14 of these VOCs, including benzene, carbon tetrachloride, vinyl chloride and others exceeded existing standards. Twelve of the 14 VOCs are known or probable carcinogens, and two are considered highly toxic to humans.

The median concentrations for some of the VOC carcinogens were so high that those leachate samples would have to be diluted more than 1000 times before they reached an "acceptable" level. Therefore EPA states, "This analysis indicates that some contaminants are of potential concern."²

This EPA leachate study also found that the overall median values of seven metals exceeded federal drinking water standards, including cadmium, lead, mercury and others. These metals can cause considerable toxic health effects when present in drinking water, including causing damage to the kidneys, liver, central nervous system and heart. In addition, two of the metals (beryllium and lead) are considered probable carcinogens by the EPA.

In the same 1988 solid waste report to Congress, EPA identified 163 municipal landfills

¹ United States Environmental Protection Agency. EPA Report to Congress, Solid Waste Disposal in the United States, Volume I. October 1988. EPA Office of Solid Waste and Emergency Response, EPA/530-SW-88-011. Washington, D.C.

² *ibid*, p. 32.

with documented environmental impacts and threats to human health. Groundwater was contaminated at 90% of the sites, and surface water quality was impacted at 45%. At 33 of the municipal landfills (20%), drinking water supplies had become contaminated.³

Municipal solid waste landfills are listed on EPA's Superfund National Priorities List (NPL) for priority cleanup operations, and are therefore sites that present real or potential significant environmental and/or human health risks. As of February 1993, 228 landfills which accepted municipal waste were on the NPL (21% of the total 1080 sites on the NPL).⁴ According to the EPA's analysis of municipal landfills on the NPL in 1988, synthetic and volatile organic chemicals and metals contaminated most of these sites, and hazardous materials were present in the groundwater at almost 75% of the landfill sites.⁵

EPA's Design Criteria Background Document used in creating the October 1991 final rule states, "One of the most important factors, when considering protection of human health and the environment at municipal solid waste landfills (MSWLFs), is leachate generation and subsequent migration to the aquifer... The principal means of protecting the environment and human health at a MSWLF is to control the leachate and prevent it from escaping into the environment."⁶

The Subtitle D municipal landfill criteria already exempts small, remote and western landfills from the design standards that other landfills must comply with. Therefore, since these landfills may not be designed to control and capture leachate, it is absolutely essential that leachate movement be monitored so that once leachate migration and groundwater contamination occur, it can be spotted early and remediation can begin.

Friends of the Earth agrees with the recent communication of Henry Friedman, Alaska Chapter Director of the Solid Waste Association of North America, an association for municipal landfill owners and operators. In his June 1994 letter to EPA, Friedman states, "We believe that **all** sanitary landfills should be monitored to verify that they are operated and maintained in a manner that does not pose a threat to human health or the environment" (emphasis added). Mr. Friedman also mentions in his letter that the

³ *ibid.*, p. 21.

⁴ US EPA Hazardous Site Evaluation Division, Site Assessment Branch, February 1993 list.

⁵ United States Environmental Protection Agency. EPA Report to Congress. Solid Waste Disposal in the United States. Volume I. October 1988. EPA Office of Solid Waste and Emergency Response, EPA/530-SW-88-011. Washington, D.C., p. 22.

⁶ US EPA, "Criteria for Municipal Solid Waste Landfills" Draft Background Document, Design Criteria, Subpart D, EPA/530-SW-88-042, p. III-35.

Alaska Department of Environmental Conservation found that small dumps pose greater threats to public health and the environment than larger RCRA municipal landfills.

Is the 25-inch annual precipitation range scientifically valid?

There is a general lack of data detailing the amount and quality of leachate generated by landfills located in different parts of the country and of various sizes. Since most landfills built prior to 1990 contain no liners and leachate collection systems, it is impossible to quantify the amount of leachate generated, since it escapes directly into the environment.

In EPA's original October 1991 Final Rule, as in H.R. 2654, small landfills in areas that receive 25 inches or less of precipitation annually are exempt from groundwater monitoring. In the final rule discussion, EPA states that the 25-inch precipitation cap ensures that the risk of groundwater contamination is reduced because of lessened leachate generation and slower contaminant migration.⁷ EPA says that the 25-inch precipitation cap is generally supported by landfill case studies derived from state data: "These data indicate that little leachate is generated in areas where the precipitation does not exceed 25 inches annually." However, we have seen no data that convince us of the accuracy of this assumption. In fact, recent data from the states provide a directly contrasting conclusion.

The 25-inch or less annual precipitation zone includes at least half of the land area of 18 western states. As the map that is attached to the back of my written testimony shows, these states are: Washington, Oregon, California, Idaho, Montana, Wyoming, Nevada, Utah, Arizona, Colorado, New Mexico, North Dakota, South Dakota, Minnesota, Nebraska, Kansas, Texas and Alaska.

An analysis of recent state 305(b) reports to the EPA on water quality shows that of these 18 states, 11 identified municipal landfills as major sources of groundwater contamination. These states included: Alaska, Arizona, California, Idaho, Kansas, Minnesota, Nevada, North Dakota, South Dakota, Utah and Washington.⁸ This information provided to the EPA by the individual states contradicts EPA's assumption that landfills do not pollute the environment with leachate in areas that receive less than or equal to 25 inches of rain per year.

Groundwater is a highly valued resource in the West, and states that fall within the 25-inch per year precipitation cap are also those that utilize the most groundwater compared to the rest of the country. This is particularly true in California, Idaho,

⁷ Federal Register, October 9, 1991, 40 CFR Parts 257 and 258, Solid Waste Disposal Facility Criteria; Final Rule.

⁸ Individual State 305(b) reports to Congress on Water Quality, 1990 and 1992.

Texas, Colorado, Kansas, Nebraska and Arizona.⁹

Also, in the 18 exempted states, according to their 305(b) reports, a majority of the population obtain their drinking water supplies from groundwater: in all of the 18 states except Oregon and Colorado, at least 50% of the population uses groundwater for their daily supplies, and in Oregon, that figure is 48%. With such heavy dependence on groundwater, this resource should be afforded additional protection in western states, not reduced protections as offered in H.R. 2654.

The definition of "dry" landfill areas must be clarified. The western half of Minnesota, which falls within the 25-inch zone, is not usually considered to be a dry climate area. In fact, the city of Tucson, Arizona, which receives an average of five to ten inches of rain per year, is not even considered arid, but is referred to as "semi-arid grassland" in standard land planning parlance. Yet, there are several municipal landfills in the Tucson area which have contaminated groundwater with leachate.¹⁰

In very dry regions, the amount of annual precipitation is small, but precipitation may be concentrated in a very short time period. For instance, according to the Water Atlas of the United States, "Although local in occurrence, thunderstorms are often responsible for the major portion of a region's precipitation. This is especially true of desert locations... precipitation during a thunderstorm tends to be very intense over a short period of time."¹¹ For instance, even though the average annual precipitation in New Mexico is very low, a certain region may receive half of its annual rainfall during a few summer months, when large storms deliver several inches of rain at a time. This rainfall could infiltrate into a landfill, and create a large slug of leachate that may then migrate away from the landfill.

According to David Emme, Supervisor of the Bureau of Waste Management at the Nevada Department of Conservation and Natural Resources, the conditions which would merit a scientific judgement that no migration of leachate would be likely are: less than 8 inches of average precipitation per year, a landfill located at least 300 feet above the water table, and no natural or man-made conduits for leachate migration under the site.¹² This is significantly more stringent than the 25 inches per year in H.R. 2654.

⁹ US EPA Office of Water, 1992 Report to Congress. National Water Quality Inventory, EPA 841-R-94-001.

¹⁰ Michael Gregory, Arizona Toxics Information, Bisbee, AZ, personal communication, July 26, 1994.

¹¹ Geraghty, James, David Miller et al, Water Atlas of the United States, Water Information Center Inc, 1973, Plate 4.

¹² Emme, David, June 13, 1994 letter to the US EPA.

An exemption would create disincentives for regionalization of solid waste management

Currently, several states have recognized that consolidated regional landfills are more advantageous than small isolated landfills in terms of environmental protection and economies of scale. States are therefore developing solid waste management programs with incentives for regionalization of rural waste facilities. For instance, in New Mexico, small landfills are currently required to comply with the state solid waste law, which promotes the use of transfer stations in remote areas and regional landfills with improved design and operation standards.¹³ In many parts of the state, counties have formed multi-county compacts in which they jointly site, operate and fund a landfill. Such regional landfills have a greater potential for better design and environmental safeguards than do individual remote landfills with no liners or groundwater monitoring. However, according to Paul Robinson, of the Southwest Research and Information Center in Albuquerque, the exemption for small landfills in H.R. 2654 would apply to most of the landfills in New Mexico, and would undercut the state's solid waste management plans.

Regionalization of landfills is also presently occurring in Arizona, where the state promotes systems of recycling, drop-off boxes and transfer stations that coordinate waste collection from rural and isolated regions for disposal in regional landfills.¹⁴

In its Subtitle D Landfill Criteria Final Rule, EPA states, "EPA agrees that regionalization of solid waste management in rural areas, employing larger, better located, designed and operated MSWLFs, is preferable to continued use of small, poorly planned facilities that may pose health and environmental threats to their communities."¹⁵ However, the design standards exemption in Subtitle D criteria and the groundwater monitoring exemption in H.R. 2654 work against recent trends toward regional landfills, and provide incentives for continued use of inadequate small landfills that have a high groundwater pollution potential.

If no monitoring occurs, contamination will result

According to the EPA's October 1991 Criteria, the exemption from groundwater monitoring which was reversed in the lawsuit is conditional, since landfill is no longer exempt once groundwater contamination eventually shows up. If H.R. 2654 works in the same way, it would allow unlined landfills to generate leachate, which moves undetected to groundwater; however, once leachate contamination is detected in

¹³ Robinson, Paul, Southwest Research and Information Center, Albuquerque, NM, personal communication, July 25, 1994.

¹⁴ Michael Gregory, Arizona Toxics Information, Bisbee, AZ, personal communication, July 26, 1994.

¹⁵ Federal Register, October 9, 1991, 40 CFR Parts 257 and 258, Solid Waste Disposal Facility Criteria; Final Rule, p. 50989.

someone's well or spring, then the corrective actions of Subtitle D may be required.

According to David Kreamer, a groundwater expert at the University of Nevada at Las Vegas, once groundwater becomes contaminated, especially in the southwest, it costs "millions and millions of dollars" to attempt to clean up deep aquifers. He also says that people who have gone through the experience of groundwater remediation, particularly for deep aquifers, regret the fact that they did not monitor and catch the contamination earlier.¹⁶ Surely, this Committee's deliberations on Superfund underscore this point.

According to the House Report on the Hazardous and Solid Waste Amendments of 1984: "...the RCRA regulatory and enforcement program must be conducted in a manner that controls and prevents present and potential endangerment to public health and the environment. In the absence of that, little more will be done than to contribute to future burdens on the Superfund program." H.R. 2654 violates this sentiment of the 1984 Congress.

The cost of remediating an aquifer that has been contaminated can be prohibitive. For small communities that cannot currently afford to install groundwater monitoring wells or perform other sampling, how will they deal with the costs of remediation and providing alternative water supplies to those families or communities whose wells are contaminated? How much does it cost to water livestock with bottled water?

Time and again, people who near rural landfills have borne the costs of leachate contamination. People who manage farms, ranches or simply live within the zone of leachate contamination are the ones whose livelihoods, property values, family health, and quality of life can be devastated. For instance, Richard Mossburg, a dairy farmer in Indiana, happened to live too near to a rural municipal landfill that contaminated the area groundwater and surface water. His well became polluted from leachate, and his dairy herd became sick. The milk from the cows was also possibly contaminated, and Mossburg was unable to sell the milk. His livelihood was ruined. Mossburg himself suffers from liver malfunctions which require expensive out-of-state treatment. Mossburg and other neighbors sued the landfill for the contamination, and even though the state of Indiana had over 200 violations on file for this landfill, the state decided that since the leachate contamination impacted only about 500 people in the rural community, nothing was to be done to remediate the groundwater or compensate those affected.¹⁷

¹⁶ Kreamer, David, personal communication, July 25, 1994.

¹⁷ Richard Mossburg, Blufon, IN, personal communication with Julie Tippitt, Friends of the Earth, June 22, 1994.

Alternatives to Groundwater Monitoring for Some Communities

In parts of the country where rainfall is scarce and groundwater is very deep, or where the ground remains frozen for months at a time, traditional groundwater monitoring may not be the only way to monitor for leachate contamination. Alternative technologies are emerging which may be helpful to small communities where groundwater monitoring is expensive or impossible. According to Friedman of Alaska, "An earlier detection method is desired at locations with deep groundwater because once a deep aquifer becomes contaminated, it is often too late to develop an effective corrective action plan without additional contamination before the plan can be implemented."

Some alternatives have been mentioned by those attending EPA's regional meetings on groundwater monitoring alternatives. They include vadose (unsaturated) zone monitoring in deep groundwater areas, surface water monitoring in areas of permafrost, and other geophysical monitoring methods, along with adequate monitoring of existing groundwater wells.

However, groundwater monitoring experts caution that alternative technologies to groundwater monitoring are highly complex and still new, and if installed in a haphazard fashion, will not work. According to Steve Amter, from Disposal Safety, Incorporated, in the vadose or unsaturated zone between the landfill and the water table, leachate moves slowly downward through the unsaturated soil until it meets the groundwater, and then moves horizontally with the groundwater.¹⁸ Vadose zone monitoring uses vacuum lysimeters, which are tubes put into the soil that can measure moisture and chemicals in the pore spaces between the soil particles. This type of monitoring has some limitations; for existing landfills, lysimeters would have to be installed slantwise into the area directly underneath the landfill. In addition, lysimeters cannot collect samples in absolutely dry soils, but if installed in the wrong location or samples at the wrong times, they may also miss a flow of leachate that moves through the soil after a rain event. It is therefore essential that experienced professionals install the lysimeters correctly in order to provide a good assessment of contamination in the vadose zone.

David Kreamer, a UNLV professor and groundwater expert who conducts Subtitle D landfill seminars for the EPA says that vadose monitoring can work, but it is not easy - individual sites must be analyzed for applicability.¹⁹ Leachate may exit the bottom of a landfill in either large slugs or as narrow fingers of leachate leaking through the vadose zone. Therefore, lysimeters must be placed in the correct position to intercept the leaking leachate. Kreamer stated that is groundwater monitoring is not required, but vadose zone monitoring is allowed as an alternative, additional monitoring would

¹⁸ Steve Amter, Disposal Safety, Incorporated, Personal Communication, July 25, 1994.

¹⁹ David Kreamer, UNLV hydrologist, Personal communication July 25, 1994.

also be needed, such as monitoring of existing nearby wells, springs and streams fed by groundwater, and a long list of criteria for items such as depth to groundwater should be specified.

In addition to alternative leachate monitoring methods, operational changes could reduce the likelihood of groundwater contamination in small landfills. For instance, in his June 21, 1994 letter to the EPA, Bruce Anderson, the Deputy Director for Environmental Health at the Hawaii Department of Health suggests the use of movable covers to prevent rainfall infiltration on the working face of a landfill, and landfill location restrictions that prevent landfill siting over potable water supplies and over geologic conditions where monitoring would be difficult. In addition, Anderson suggests that programs could be enacted that prevent hazardous materials from entering landfills from households and small quantity generators. He notes that "these programs could be extremely effective in small rural communities."

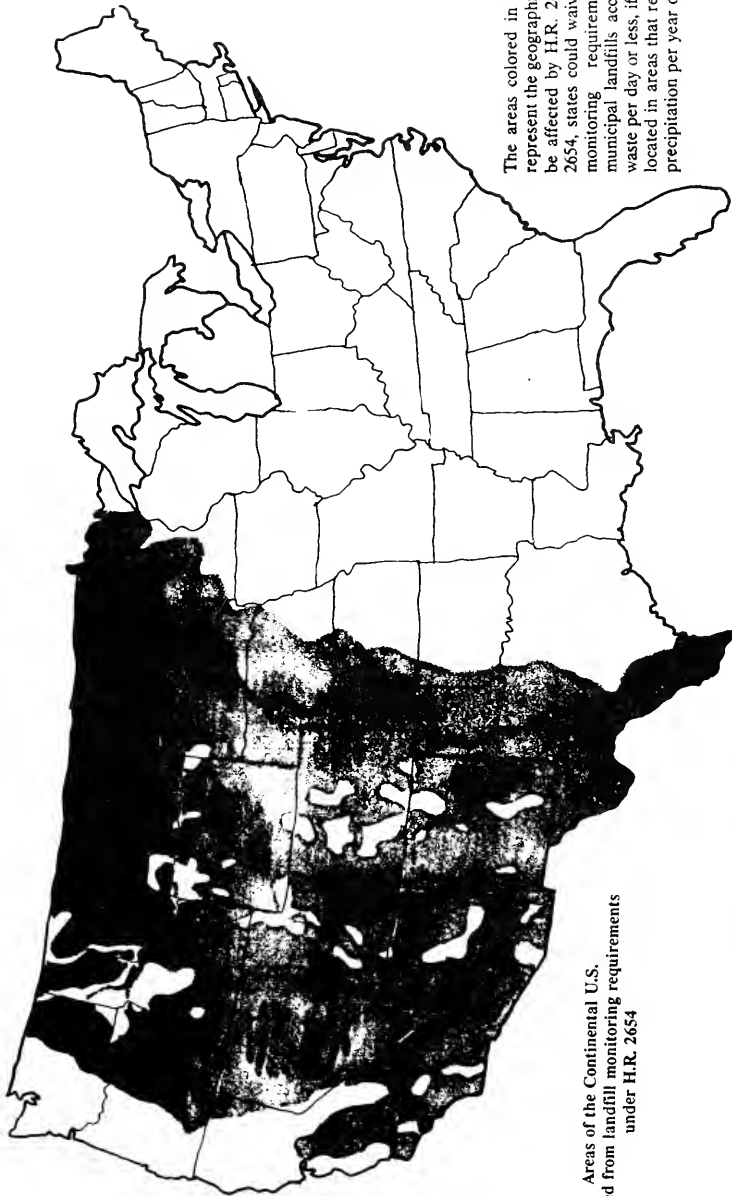
The same ideas for the use of better landfill covers and enhanced removal of hazardous materials from small landfills were also mentioned by commenters from Alaska. For instance, Richard Orlando of the Bristol Bay Area Health Corporation, in a June 17, 1994 letter to EPA suggests that small communities could identify materials with a high potential for impacting groundwater if deposited in a landfill, and restrict them from landfill disposal - by working with transport carriers to return targeted wastes to urban areas for reclamation or proper disposal. Such endeavors "should be within the capabilities of small remote communities," stated Orlando.

In areas where the groundwater is not extremely difficult to monitor, groundwater monitoring wells should be required. In very small communities, the expense could perhaps be alleviated by reducing the number of constituents that must be analyzed. A selected set of indicator parameters that include a shorter list of volatile organic chemicals, heavy metals and other parameters such as conductivity and total dissolved solids could be used to analyze groundwater for leachate contamination, thus reducing laboratory costs.

In conclusion, we at Friends of the Earth believe that it is a mistake to allow blanket exemptions from leachate monitoring at municipal landfills, regardless of their locations. Leachate from landfills has already contaminated the water supplies of numerous communities and families across the country. We must learn from past mistakes, and not simply pretend that leachate contamination will not occur in certain parts of the country. Data from western states clearly prove otherwise.

Groundwater experts emphatically point out that it is much cheaper to prevent groundwater pollution and detect it before it migrates than to attempt to remediate a contaminated aquifer. Especially in areas where the groundwater is several hundreds of feet deep or otherwise difficult to monitor, groundwater remediation is prohibitively expensive and the results may not be satisfactory.

Thank you for the opportunity to present these ideas. I would be happy to take any questions you may have.



Areas of the Continental U.S.
exempted from landfill monitoring requirements
under H.R. 2654

The areas colored in blue on this map represent the geographic areas that would be affected by H.R. 2654. Under H.R. 2654, states could waive all groundwater monitoring requirements for small municipal landfills accepting 20 tons of waste per day or less, if those landfills are located in areas that receive 25 inches of precipitation per year or less.

The precipitation mapping was drawn from the 1973 Water Atlas of the United States, by Geraghty, Miller, Van der Leeden and Tolse. Plate 2 of that publication provides a more detailed contour map of average annual precipitation, utilizing U.S. Department of Agriculture data for a 40-year period.

Mr. SWIFT. I thank all of the members of the panel.

Ms. Garner, as we heard Mr. Robertson's testimony, EPA has been examining alternative groundwater monitoring procedures that would reduce cost, but still provide means of detection. Do you have any comment on that approach to the problem?

Ms. GARNER. Yes. In fact, we hosted one of the hearings, and we took the EPA representatives on a tour of five different landfills in Texas. We showed them the best that we had in community that had a lot of oil and could afford to put in the best, and then we showed them Presidio, Tex., in which 85 percent of the population was said to live on incomes of \$250 a month. We approve of the system that they are working out.

Mr. SWIFT. Ms. Stockard, the language in the bill, H.R. 2654, exempts communities with experience in annual interruption of surface transportation of at least 3 consecutive months. I am wondering if that takes care of all the communities that you have spoken about because it seems to me that in Alaska you could have some communities that do not experience 3 month interruption but are located very large distances from—what I am saying is they may have a smaller interruption than 3 months but still could be miles and miles and miles away from an alternative waste facility. So is the 3-month interruption adequate for the kinds of situations you find in Alaska or would you have to have other criteria?

Ms. STOCKARD. Thank you, Mr. Chairman.

In general, most of our small landfills will fall under one of the two exemptions. Obviously, the ones off the road system have a 3-month interruption because there is no road access at all to the villages throughout much of western and northern Alaska. On the road system, many of the communities in the interior of the State receive less than 25 inches per year, so it is also an arid region.

There are a few communities that do not fall under either of those exemptions which will be severely impacted. They do have more opportunities for regionalization because they are on the road system, but it is still a long distance for them, talking in excess of 100 miles.

Also, there is some question about the many small communities in southeast Alaska which are not connected to any larger facilities by anything other than barge because there are no roads connecting the towns throughout southeast Alaska, but that also is a high rainfall area. So those are going to be difficult problems for us to deal with.

And the various small communities, even if they are exempted from the design in groundwater monitoring, still are unable to meet the operating criteria in the Federal regulations and the State believes that additional relief is needed to give us the flexibility to work with those communities so that they can make incremental improvements in their solid waste management without being labeled violators of the Federal regulations.

Mr. SWIFT. Thank you.

Ms. Kahn, is it fair to say that you agree with EPA that alternative groundwater monitoring procedures could hold a solution that would reduce costs in these small communities but would still give us a measure of protection against groundwater contamination?

tion? Or do you feel that they are going too far, from your perspective, in providing flexibility?

Ms. KAHN. Well, we certainly agree that alternatives could be a good possibility for small and remote landfills. The main thing that we disagree with EPA is that 25-inch precipitation line. We believe that parts of western Minnesota may not really be called arid compared to Texas or New Mexico, so we would question that 25-inch line. We would ask to see the data that verifies and justifies that.

Mr. SWIFT. It seems to me that we can't all afford Cadillacs, and it probably applies to environmental protection, too. I think it is very important for the environmental community to keep the ideal. And you probably shouldn't be talking about a Chevrolet, you should be talking about a Rolls Royce in terms of what the ideal should be, but some places just can't afford a Rolls Royce or a Cadillac or probably even a Chevrolet. They may be able to afford a used Mustang.

And trying to find a public policy way that will take those things into consideration without doing violation of the underlying principle is always tricky, but it seems to me that is what we have got here. I mean, you are talking about a place where the standard method of sanitation is the honey bucket, and we are talking about groundwater monitoring. It is just incongruous.

And if I understood Ms. Stockard correctly, she was saying we have got to prioritize. We have huge areas, limited resources, and, very frankly, there are a whole bunch of things we should be doing before we are doing groundwater monitoring in the permafrost.

I think this tension will continue probably as long as we try to write rational policy for these things. And, as I said, I am not critical here of the environmental movement in establishing the ideal, but I do think from time to time it is not illegitimate or curmudgeonly to ask how much environmental protection can we afford.

It sounds awful, doesn't it? It just sounds awful, but I think that is a very legitimate question if asked with good faith—not as a debating point but with good faith.

And this just seems to me to be one of those issues where some very tough decisions have to be made between what would be ideal if you had infinite amounts of money and the practical economic realities faced by these small, often poverty-stricken rural areas.

And so I think the discussion has been extremely helpful to the committee, including Ms. Kahn, your contribution, as we seek and as the EPA searches for some kind of a balance so that we have a common-sense policy that protects the environment and doesn't force poor people to spend most of their disposable income on something that probably even in anyone's list of priorities wouldn't rank very high just because there is a Federal regulation that forces them to do that.

Thank you all very much. You have been extremely helpful to the committee as we try to wade through this difficult problem.

The subcommittee is going to take a very brief recess, and if the members of the next panel would like to go ahead and take the table, we will reconvene in about 3 minutes.

[Brief recess.]

Mr. SWIFT. The subcommittee will reconvene.

We welcome our two panelists. I would like to indicate that we are now going to turn our attention to a topic that has continued to be the focus of legislation and litigation.

Ten years ago, as part of the 1984 amendments to RCRA, Congress enacted a specific provision covering waste-to-energy facilities burning municipal solid waste. Compliance with that law, however, has proved to be extremely difficult. Choose any one of several conflicting interpretations of the law and you probably can find an EPA policy to support it.

Adding to the compliance quandary is the Supreme Court decision issued in May of this year that invalidates a widely held EPA and private sector interpretation.

I am pleased to report that many of those involved in past disputes now are working—I am going to underline this. I am extremely pleased that many of those involved in past disputes are now working together to develop a legislative proposal. Today's informational hearing will provide us with information needed to move quickly and in an informed manner on these issues.

We welcome again Mr. Peter Robertson, Deputy Assistant Administrator of the EPA, and we especially appreciate your willingness to make two separate appearances at today's hearing.

We also welcome Mr. Thomas Eaton, the Program Manager of the Hazardous Waste and Toxics Reduction Program of the State of Washington's Department of Ecology.

Mr. Robertson's department implements an extremely successful State program regulating ash generated from waste-to-energy facilities. Thank you for coming. We look forward to your description of Washington's program.

First, we recognize Mr. Peter Robertson of the EPA.

STATEMENTS OF PETER ROBERTSON, DEPUTY ASSISTANT ADMINISTRATOR, OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, ENVIRONMENTAL PROTECTION AGENCY; AND THOMAS EATON, PROGRAM MANAGER, HAZARDOUS WASTE AND TOXICS REDUCTION PROGRAM, DEPARTMENT OF ECOLOGY

Mr. ROBERTSON. Thank you, Mr. Chairman. I enjoyed my first appearance so much I couldn't wait to get back.

The combustion of municipal solid waste, particularly through resource recovery facilities which we commonly refer to as waste-to-energy facilities, can be an important component of a local government's approach to managing its municipal solid waste.

As of 1990, 16 percent of municipal solid waste generated in the United States, which is approximately 32 million tons, was combusted. This combustion generated around 8 million tons of municipal waste combustion ash annually.

The regulatory history of ash generated from the combustion of household wastes combined with nonhazardous commercial and industrial wastes began in 1980 and extends to the present. And, as you noted, Mr. Chairman, during this time period Congress, the EPA, the courts and the States have presented varying interpretations regarding how this residue should be regulated.

Perhaps most significantly, the recent decision by the U.S. Supreme Court in the City of Chicago case held that the Resource

Conservation and Recovery Act does not exempt ash generated at waste-to-energy facilities from the hazardous waste regulatory program. As a result of this decision, persons generating ash from waste-to-energy facilities must determine whether the ash is hazardous and, if so, manage it in compliance with EPA rules for hazardous waste management promulgated under Subtitle C of RCRA. Ash that is determined not to be a hazardous waste may be disposed in a nonhazardous waste facility regulated under Subtitle D of RCRA.

The Agency is very sympathetic to the concerns that the court's decision raises for the regulated community. We understand the potential impact that this decision may be having today on communities that rely on waste-to-energy facilities for their municipal solid waste management needs and on the industry that serves those needs. With that in mind, the Agency is working with communities and the private sector to provide guidance, and we are attempting to answer the many questions that arise dealing with this subject.

Immediately after the court's decision, the Agency held a stakeholder's meeting to solicit comments from those impacted by the decision, including States, municipalities, the combustion industry and environmental and public interest groups. Shortly thereafter, the Agency issued three documents which address a number of the questions and concerns that were raised at that meeting.

First, the Agency issued for immediate use a draft guidance manual for sampling and analysis of municipal refuse incinerator ash. The purpose of the manual is to assist owners and operators of municipal waste combustors in designing a plan for testing ash to determine whether it is hazardous.

Second, we issued a memorandum outlining our strategy for implementing the court's decision. The strategy identifies the Agency's priorities for pursuing enforcement actions concerning the management of municipal waste combustor ash.

Third, the Agency published a notice in the Federal Register that did two things: First, it extended the deadline within which owners and operators of facilities that treat, store or dispose of hazardous ash must file a hazardous waste permit application; and, second, it declared that ash from waste-to-energy facilities is a newly identified waste for the purposes of the RCRA land disposal restrictions, meaning that the current land disposal restrictions do not immediately apply.

The Agency plans to undertake several future implementation activities, including preparation of the final guidance on sampling and analysis, promulgation of land disposal restrictions for treatment of hazardous ash prior to land disposal, and preparation of implementation guidance that will serve to address the many questions received to date regarding the regulation of municipal waste combustor ash.

Additionally, EPA is willing to engage in discussions with interested parties regarding alternative management schemes for municipal waste combustor ash and is committed to working with all stakeholders to provide assistance over the coming months to facilitate compliance with the applicable regulations. We do hope that

our efforts will assist the regulated community in complying with the Supreme Court's interpretation of RCRA.

That concludes my oral presentation, Mr. Chairman.

Mr. SWIFT. Thank you.

We are now happy to recognize Mr. Eaton.

STATEMENT OF THOMAS EATON

Mr. EATON. Thank you, Mr. Chairman.

For the record, my name is Thomas Eaton. I work for the State Agency in Washington that does environmental protection. We are called the Department of Ecology. You have my written testimony, so I won't bother reading that into the record.

I actually was glad to fly out 2,500 miles to be with you this morning to deliver a very simple message, and that message is this: We have worked very hard in Washington State to develop an adequate environmentally protective system to manage incinerator ash, and we would like to continue using that system.

A little background for the committee. In 1986 and 1987, our State legislature wrestled with this issue over two sessions. It had enough legislative interest in the second session to be one of the few bills that was passed out of the house on the last day. I think they actually had to stop the clock to hear this bill and pass it out, but it did have very significant legislative interest.

Our Agency then worked for 2 more years with an advisory committee to develop very sound ash rules. We ended up with 20 pages of specific requirements for incinerator ash.

In general, you could say they vary somewhere between Subtitle C and Subtitle D rules, but I think, more importantly, they include very specific requirements for managing incinerator ash. There are requirements there you won't find in any of the other rules, requirements for compaction, for ash management plans, for testing for toxic constituents so that the generators can reduce the toxicity of their ash. These standards are very sound, very well thought out, and I think are very protective.

Once there were clear rules in place, a private company stepped forward and sited and built an ash monofill that met our standards. This facility has enough capacity to handle the ash, generated by our largest generators in the State for many years to come.

One side note is that the company has a voluntary contract with the county they have sited in that gives the county veto authority over wastes going into the facility. The county has signed in blood with their local citizenry that they will not in any way, shape or form take anything called hazardous waste in their landfill.

So, in this instance, the moniker is everything. They don't mind taking ash, but if it is labeled hazardous waste, the county will, in fact, reject it.

So, as you can see, a lot of thought has gone into these rules. A lot of thought has gone into our system.

What we want is very simple. We want to just keep using our system. If legislation is needed to allow us to do that, we would support it.

If you are considering legislation, I would ask you to look at three main points: Set up some minimum standards for States to meet. Our standards are very sound. They are specific to Washing-

ton State. I think you can generalize those and set up some very clear minimum standards.

I would strongly advocate that you would set up a system that would be based on presumptive authority, rather than a system that would have the Federal Government authorizing States. I cannot stress this strong enough because if you set up a normal system that is delegable to States you will create a 3 or 4 year process for EPA to write rules on how to authorize States and for States to apply and receive authorization. If you set this up on a presumptive authority basis, where States have the authority to run existing ash regulatory systems unless EPA takes a positive step to remove that authority, that will work better and create much less disruption for our State and many other States.

Third, I ask you to consider the issue of retroactivity. Right now ash generators are wrestling with the question whether the ash they produced over the last 5 years may have failed the test determining what is hazardous waste. If it had failed, under the current interpretation, the ash is going to be subject to RCRA Subtitle C requirements. I would advocate that it not be. A statement or a position that the court's decision is not retroactive is needed to provide clarity for ash producers.

I provided more detail on our program in my testimony, and I brought copies of our law and regulations if the committee is interested.

Again, our request is simple. We have a system that works. Let us keep using it.

Mr. SWIFT. Thank you, Mr. Eaton, very much.

[The prepared statement of Mr. Eaton follows:]

Testimony Before the United States Congress
Energy and Commerce Committee
Transportation and Hazardous Materials Sub-committee
Congressman Al Swift, Chairman
Washington, D.C.
July 27, 1994

Written Testimony of Thomas Eaton
Program Manager
Hazardous Waste and Toxics Reduction Program
Department of Ecology, State of Washington

Thank you for the opportunity to appear before your sub-committee today to discuss the management of municipal incinerator ash residues. My name is Thomas Eaton; I work for the State of Washington environmental agency, the Department of Ecology. I have been the manager for the solid and hazardous waste programs for the past seven years including the time period when our state ash law was passed and the ash rules written.

Ash In Washington

In 1992, the state's six municipal incinerators burned 12 percent of the state's municipal waste producing 142,000 tons of ash. A significant portion of this ash fails the federal test that measures whether contaminants will be leached by rain water. Failing such a test makes such ash subject to subtitle "C" regulation of the Resource Conservation and Recovery Act under the Supreme Court ruling of May 2, 1994.

Development of Ash Rules

In 1986, it became clear that municipal incinerator ash would fail both state and federal hazardous waste designation tests. In order to insure proper environmental controls for such combustion residues without subjecting such residues to the complex hazardous waste rules, the State Legislature passed the Special Incinerator Ash Disposal Act, ch. 70.138 RCW, in 1987. The Act applies to most municipal incinerator ash generated in the state. It authorized the Department of Ecology to require ash management plans from municipal waste incinerators; it also authorized the setting of facilities standards and a permitting system for ash handlers.

In 1988, in order to write the implementing ash rules, the Department of Ecology assembled an *Ad Hoc* Committee on Ash Regulation. We invited experts and scientists from across the country including a representative, each, of the Environmental Defense Fund and Wheelabrator Environmental Systems. Our intent was to develop rules that were protective of human health and the environment taking into account the properties of municipal incinerator ash.

Washington's Ash Standards

The Committee process produced a comprehensive set of management standards that fall between the facility standards of subtitle C and subtitle D (hazardous and solid waste standards, respectively). These standards are very comprehensive, requiring generators to develop ash management plans covering sampling, handling, transportation, and metal reduction programs. The standards also have a comprehensive set of requirements for ash monofills some elements of which are similar to those required for a RCRA "C" facility. The attached table compares hazardous waste, municipal solid waste and ash standards in our State.

Most of Washington's ash is currently being hauled to a privately owned, permitted landfill located in south-central Washington. This facility was built to and complies with our ash management standards. The private company (Rabanco) has a contractual relationship with the county (Klickitat County) which, among other things, gives the county veto authority over certain types of wastes. Although the county is comfortable that the facility is environmentally sound, and takes no issue with incinerator ash, they are adamantly opposed to Rabanco accepting any material that is classified as a hazardous waste.

Recommendations

Washington State's primary objective is to allow our current system, which operates well and is environmentally protective, to continue in operation. If legislation is needed to allow states such as ours to continue without unnecessarily disruptive federal intervention, then we would favor such an approach. To achieve this objective, legislation should focus on the following:

a. Allow "presumptive authority" for existing state ash programs until EPA declares the state program to be unauthorized because it lacks essential features such as the requirement for liners, groundwater monitoring, ash monofilling and other appropriate features. This will allow states to continue while EPA focuses its energy and resources on the states that are farthest behind in environmental protection. It will be much less disruptive than previous federal approaches to regulating solid and hazardous waste nationally which injects great uncertainty as each state must submit to Federal application and review procedures for authorization. Overall this approach gives states, EPA, ash generators and ash handlers time to adjust to the new court ruling and legislation which you may pass.

b. Allow EPA to issue ash permits according to a model set of ash management rules where a state has been unauthorized formally

by EPA. This would encourage EPA to look closely at whether a state program is meeting overall objectives of protecting human health and the environment. It would also assist unauthorized states with a model set of rules.

c. Address the fact that given the substantial confusion surrounding the issue of whether previously generated ash was to be excluded or included in the hazardous waste net, that retroactivity be clearly addressed in this amendment. We should suggest that retroactivity for all ash be addressed to exclude its regulation as a hazardous waste before the me Court decision, June 1, 1994, except for imminent hazard provision of section 7003.

d. Give States the option of continuing to evaluate and implement ash recycling programs where this option is adequately protective of human health and the environment. The State of Washington has a two step process in its rules to insure adequate protection. First demonstration permits are required for ash treatment, reuse and recycling if criteria spelled out in the rules are met. Second, class use permits for larger scale treatment, reuse and recycling can then be issued if the demonstration is successful. To date there have been no demonstration or class use permits issued for ash under these rules.

Thank you again for giving the State of Washington the opportunity to testify before your committee in this important area of solid waste management. I would be glad to entertain any questions you might have on this subject.

State of Washington Landfill Standards How Do They Compare?

	Washington Hazardous Waste "C" Rules	Washington Incinerator Ash Rules	Washington Municipal Solid Waste "D" Rules
Landfill Bans	"TDRG"-Federal restrictions Extremely hazardous waste Leachable organic waste Organic carbonaceous waste Liquids.	Bans co-disposal of ash and municipal solid waste.	Free liquids banned Sewage sludge banned Motor oil banned
Locational Standards	Natural Environment - 20 criteria Built environment - 6 criteria	18 criteria	6 federal criteria 8 state criteria
Liner Design Standards	Geomembrane (CFR) Leak detection system Geomembrane Soil layer (E-07)	Geomembrane (Design A) Leak detection system Geomembrane Soil layer (E-07)	Geomembrane Soil liner (E-07)
Cover Layer Standards	Permeability of Cap equal to bottom liner.	Vegetative layer Geomembrane Soil layer (E-07) Leak detection system	Vegetative layer Geomembrane Soil layer (E-05)
Operating Standards	Waste analysis "3-D" waste placement records No methane monitoring Ground water monitoring ("C")	Daily cover Lead & cadmium in air/soil Dust suppression Ground water monitoring (pre-D)	Load inspection Daily cover Methane monitoring Ground water monitoring (D)
Administrative Standards	Manifesting Closure-post-closure care Extensive permit - state	"Simple" manifesting 30 year post-closure care 5 year permits - state	No manifesting 30 year post-closure care 10 year extensive permits - county
Recycling Standards	Extensive	Limited	None

Mr. SWIFT. Let me first ask some questions of the EPA, and let me just start with the presumptive authority question that Mr. Eaton recommended. Would EPA have any trouble authorizing States that way?

Mr. ROBERTSON. Well, it is backwards from the way our statute operates now, Mr. Chairman, so it would require a legislative change before EPA would have the authority to do that. And we have not discussed within the Agency yet—we have not made a decision within the Agency yet whether we would support a piece of legislation that would so implement the program.

Mr. SWIFT. One of the things I want to discuss today is whether EPA can resolve the ash compliance difficulties administratively or whether we need legislation. My view is that we are so late in this session that we probably need to pursue both tracks. I always think that if things can be handled adequately through administrative action I am willing to defer, but we don't have a lot of time to wait to know.

I am very, very interested in what the groups of interested parties that are talking are going to recommend. And, if there is some agreement and it requires legislation, maybe we can move very quickly on that. But as we consider legislation, this issue that Mr. Eaton raised with regard to presumptive authority is something we would like to take a very close look at. You might want to kick that around a little bit downtown.

Mr. Robertson, you are exactly right. We would have to give you authority to do that. Do you want that? It is a different kind of policy approach, and your views on that would be very important for us.

Mr. ROBERTSON. We will be happy to work with the subcommittee on that issue, Mr. Chairman.

Mr. SWIFT. Excellent. Do you think you have the authority to fix this problem or are we going to have to legislate? And, if you can fix the problem administratively, how completely can you fix it?

Mr. ROBERTSON. Well, Mr. Chairman, the problem with almost any fix that EPA could bring to this problem is that it would almost certainly require rulemaking. And the necessary time that is involved in a rulemaking such as this would require a lot of time, a lot of resources. This rule, frankly, would not be an easy one, I don't believe.

I would be lying to you if I told you that I would expect that, regardless of how we came out, we wouldn't get sued as soon as we issued a rulemaking by one side or the other. And that would involve the delay inherent in the litigation process.

So there are things that we might be able to undertake at the Agency but certainly I think, even recognizing that you are close to the end of this session, that Congress might be able to address this question more quickly even in the next Congress than we might be able to at the Agency. And we are certainly aware of and applaud, Mr. Chairman, the negotiations that are going on between various interest groups right now. We would certainly be willing to take a close look at any pieces of suggested legislation that they might come up with and then be ready to work with you if it came out in a timely fashion to try to get something done this session or whenever that might be appropriate.

Mr. SWIFT. One of the assumptions there is that we would need to write any legislation so it would not require the Agency to issue a whole bunch of rulemaking, or we would be right back into the time-consuming process that you feel would exist if you tried to do it purely administratively.

Mr. ROBERTSON. Yes, sir.

Mr. SWIFT. Mr. Eaton, have you had any contact with the group that is trying to work something out?

Mr. EATON. Others in our Agency have been in direct contact with those having discussions, but I have not.

Mr. SWIFT. But people with your interests have?

Mr. EATON. Yes, Mr. Chairman.

Mr. SWIFT. I think if we are going to do anything legislatively this year, having some consensus develop is going to be necessary. I want to be sure that the particular perspectives of Washington State are being considered because I think we have some unique ones, both because of the very stringent ash laws in the State and, as far as I know, in my hometown, we have the only place in the country, I think, that has ash being stored.

There is a place in my hometown with 35,000 to 37,000 tons of ash sitting on a slab because the State of Washington's Department of Ecology suggested that they hold it and wait for the new landfill which they were having built. Although that landfill meets extremely rigorous conditions of Washington State law, the Federal courts recently rendered it capable of accepting the stockpiled ash.

Which leads me to another question. Do you think there would be any problem in dealing with all ash the same, or must we distinguish between ash generated after the court decision and ash generated before the court decision?

Mr. ROBERTSON. Well, the question of retroactivity is a sticky one, Mr. Chairman. It is my understanding that there are legal precedents that suggest that this decision could be retroactive in nature. This is a legal question, and EPA's opinion on that issue wouldn't be granted deference, in the way that other agency decisions are.

Mr. SWIFT. Would EPA have any problem with any legislation that we are doing being drawn so this particular kind of ash that was created and stored prior to the court decision would definitely be able to be handled in the way that any prospective ash could be handled?

Mr. ROBERTSON. Well, certainly that sort of policy issue would be within the purview of Congress, and if that is the decision that your subcommittee was going to take, Mr. Chairman, I do not believe the Agency would have a problem with that.

Mr. SWIFT. I hope that is something that the group that is discussing things would take a look at. Because in this instance, the company that has the ash and owns the incinerator and runs the operation, responded to what I consider to be a very responsible request on the part of the State of Washington. It is not a matter of recalcitrance or failure to act. The company followed the State's suggestion and then things just got messed up. And so, through no fault of their own, they are sitting there holding 37,000 tons of ash, and they need to be gotten off the hook. If there is anybody else

in the country in a somewhat similar situation, they, of course, should be as well.

Can a facility combine the fly and bottom ash before testing to determine if it is hazardous?

Mr. ROBERTSON. Well, under our implementation procedures right now, Mr. Chairman, they can. We refer to this as the point-of-generation issue, and that is a hotly debated point right now.

We are looking at that issue within the Agency even as we speak. We are looking at the combustor designs. We are looking at the way these sorts of issues have been dealt with in the hazardous waste program, and we hope to be able to issue a more definitive statement on that in the not-too-distant future.

But under our current implementation strategy, bottom ash and fly ash can be mixed before testing.

Mr. SWIFT. Is it your interpretation of the Supreme Court decision that all ash must be disposed of in a hazardous waste landfill?

Mr. ROBERTSON. Certainly not if the ash doesn't test hazardous. You have to test all ash, and if it tests hazardous, it has to be managed in accordance with hazardous waste management procedures.

That doesn't mean, for example, that it all has to be disposed of as a hazardous waste landfill. It could be treated, for example. And if after treatment it no longer tested hazardous, it could be disposed of in a Subtitle D landfill.

Mr. SWIFT. If you are familiar with the Washington State regulations regarding ash, could you tell me whether EPA has an opinion whether that program is protective of the environment?

Mr. ROBERTSON. Well, I am generally familiar with the Washington procedures, Mr. Chairman, and we certainly find much to admire in Washington State's plan.

It does require testing of ash using both the toxicity characteristic leaching procedure which EPA uses and other State tests as well. There is a volume limitation on storage of no more than 30 days. Containment has to be in a totally enclosed building or in leak-proof containers or tanks.

Regarding transportation, ash has to be transported in leak-proof containers. The trucks have to be covered. Wheel washdown is required.

So while the Agency is not prepared to say that the Washington State program is entirely protective, we certainly find much to admire in the Washington State program.

Mr. SWIFT. Are you saying that it is not protective or are you saying that you just don't know?

Mr. ROBERTSON. Definitely not saying that it is not protective, Mr. Chairman.

Mr. SWIFT. Do you believe EPA has the authority following the court decision to determine that ash is not hazardous provided it is managed in compliance with controls such as Washington State's?

Mr. ROBERTSON. Well, we certainly do have the authority to issue the so-called contingent management type of rules under Subtitle C as regards this specific issue. Although, Mr. Chairman, we are right back to where we started, having to go through a rulemaking that would probably take a long time, would probably be challenged. And so if that were the only answer we were considering,

again, legislation might be more expeditious than would be an EPA rulemaking.

Mr. SWIFT. Mr. Eaton, what is your view of the threat that the handling and disposal of municipal incineration ash poses to human health and the environment?

Mr. EATON. The combustion process is basically a volume reduction process. It does a good job at destroying the organics in garbage, and it concentrates heavy metals.

It also changes them somewhat chemically in the process. I believe the resultant ash product is a material that can be handled safely with certain controls. I think we have a good set of controls that do that. Disposal standards such as ours can be developed that will safely isolate the ash from the environment so the disposal of ash will not pose a threat to future generations.

Mr. SWIFT. What has been our State's experience with rules that attempt to thread a course between Subtitle C, hazardous waste, and Subtitle D, municipal solid waste rules?

Mr. EATON. Well, our experience has been that if the rules are clear and understandable and implementable they can be followed. These ash rules are a good case in point. They include elements of D, elements of C and new elements that are particularly germane to ash. Once the private facilities understood what the rules were, then they could go out and construct facilities and meet those rules. So our experience has been if the rules are clear, the facilities can respond.

Mr. SWIFT. Do you think we need legislation or do you think that EPA may be able to handle this administratively?

Mr. EATON. EPA may be able to handle it administratively. I have received different opinions from different lawyers, as you probably have, too.

I think the thing that we should seek is to provide some stability for ash producers. It has been an era of uncertainty for the last 10 years, and I think if we can do anything to provide some certainty and stability for them, I think we will have done something very good.

Mr. SWIFT. Well, I thank you very much, and I think this has been helpful.

I earlier took kind of an inside shot at the Federal courts, but—a bit more seriously—what is happening is that courts are making decisions that create immediate chaos which require an almost immediate response from Congress on issues that would better be dealt with in time in the context of overall rewrites of other legislation.

I think that is true of the interstate bill. I think it is true of flow control. I think it is certainly true of ash. That you have greater resources with which to deal with the problem when you are doing it in the context of a much larger piece of legislation, and you are much less likely to come up with something that is inconsistent. And I think you reduce the unintended consequences when you do it that way.

But the court isn't giving us that luxury because, if you take ash as an example, we can't sit around for 5 years waiting for a RCRA reauthorization in order to be able to address it. This is a very bad way to make public policy.

I think some of the people that file all these suits ought to consider that as well. There is relatively little that the Federal court can do.

So it is really not so much a criticism of the court or of people who have legitimate issues they want to take to the court, but there is an incredible problem when you start putting Congress in a position of having to legislate very, very quickly and out of context. And some attention should be devoted to the public policy issues raised by this whole process.

The last thing I would like to say that I am a great fan and supporter of various interest groups getting together and making proposals to Congress so that we can take a look and be sure that the public interest is met. But it assures us of being—first of all, that the expertise that various people in the private sector bring to an issue is included, and it is a premasticated compromise, very often, which makes the legislative process easier. And I know and I commend people who are working on this very issue right now.

Let me do something very rude to those people, however, and that is remind them of the calendar, which is a fierce enemy that this subcommittee has been dealing with on various issues all Congress long. The last markup the full committee has announced for this year will be August 9th, full committee.

You have, prior to that time, subcommittee action that needs to take place and drafting and other kinds of things that need to be done. So that the negotiated process under way has my full support, and if there is anything that I can do to be helpful, I hope the people involved in those negotiations will contact me. But they have pretty much got to be done this week. We have got to arrive at some conclusion this week if we are going to have any chance to do anything with the result.

I mean, there is absolutely no point in arriving at the station with a package after the train has gone, and this train is leaving very, very shortly. I am not imposing the time limits on this, the calendar is, and it is a tough, inflexible and rather mean taskmaster, so I just hope that those who are working on it will redouble their efforts.

I repeat again if there is anything I can do to help that along, I would like to, but we have got to—I would love to hear something on Friday at the very latest.

I thank you very, very much. I hope that both of you will stay in close contact with us as we go because I think all of this needs to be coordinated with EPA, and Washington State, I think, has gone out of its way to craft very good regulations in this regard and that, therefore, they should be involved in this process.

We thank you very much, and the subcommittee stands adjourned.

[Whereupon, at 11:20 a.m., the subcommittee was adjourned.]

[The statement of Hon. Barney Frank was received for the record:]

STATEMENT OF HON. BARNEY FRANK, A REPRESENTATIVE IN CONGRESS FROM THE
STATE OF MASSACHUSETTS

Mr. Chairman, I appreciate very much your leadership in scheduling this hearing to examine the impact of the recent Supreme Court ruling in *City of Chicago v. Environmental Defense Fund, Inc.*

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The ruling that ash generated by municipal waste-to-energy facilities is not exempt from regulation as a hazardous waste under the Resources Conservation and Recovery Act (RCRA) has placed a number of municipal governments in a very difficult financial position. I have heard from representatives of several Massachusetts municipalities which have complied in good faith with the relevant State and Federal laws for many years, who have pointed out to me the potential for significant increases in their waste disposal costs as a result of this decision.

But, even more important, these local governments find themselves in an uncertain situation, not knowing whether they will be required to make major changes in their waste disposal procedures; whether long-standing contracts with waste disposal facilities will have to be renegotiated; and even whether they may be liable for possible retroactive violations of the law under the recent ruling. Thus, municipalities are very interested in having this uncertain situation resolved as soon as possible so they will know exactly where they stand and can begin making the necessary changes in their procedures, but at the same time they strongly believe that there must be a reasonable phase-in period or interim policy put in place so they have adequate time to plan for whatever new requirements they ultimately must follow.

While I am disappointed in the Court's ruling, I understand of course that the Environmental Protection Agency must comply, and I appreciate the fact that the Agency's initial response has shown some flexibility with respect to the obligations of municipal governments. If legislative action is needed to ensure that this flexibility continues, I believe we should move on it as quickly as possible, and I would be happy to join with you, Mr. Chairman, in that effort.

I am pleased that many of the key organizations with an interest in the outcome of this case—including the National League of Cities, the National Conference of Mayors and the Environmental Defense Fund—have been meeting in an effort to reach a consensus on how to proceed in the wake of the decision. However, I believe it is essential, as the EPA continues to implement the ruling, that it be done in a manner which minimizes to the extent possible any negative financial impact on municipalities, and gives them the maximum lead time to comply with any new requirements. And, especially in cases where the State waste disposal laws are already quite strict, I believe the EPA should take steps to protect municipalities from any type of retroactive liability as a result of the Court's ruling.

Again, Mr. Chairman, I appreciate your work on this issue, and I look forward to collaborating with you on possible legislative action in this area, should the issues at stake here not be resolved through the regulatory process.



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